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ABSTRACT

This proceedings document presents the texts of 11 papers presented at the 1999 annual meeting of the Association of Higher Education Facilities Officers. The papers are: (1) "Is There a Pot of Gold at the End of the Rainbow?" (James J. Sebesta, Charles Strutz, and Frank Brewer); (2) "Preparing for Y2K" (Joe Spoonemore, Michael Montgomery, and Robert J. Rusch); (3) "Raise It Up a Notch--Through People" (George B. Wright); (4) "Culture Shift: A Mandate for Leaders" (Glenn R. Smith); (5) "Assessing Capital Equity/Adequacy for a University System" (Eva Klein, William D. Middleton, and Tom Davies); (6) "Changing the Corporate Culture: A Physical Plant Department Learns a New Paradigm for Serving Stakeholders" (William Tam); (7) "Benchmarking the 'Bigs'" (Paul Schneller, Hank Hewetson, and Charles Sheppard); (8) "Planning for Uncertainty" (Ted Dews); (9) "APPA's Basic Tools for Facility Supervisors: Here's How It Works" (Brian H. Wormwood); (10) "An Integration of Operations and Academics: Clemson University's Central Energy Systems Laboratory" (Brian T. Mueller); and (11) "Where the Rubber Hits the Road Performance Improvement" (Charles A. Sippial, Sr.). A speakers list is appended. (Some papers contain references.) (DB)

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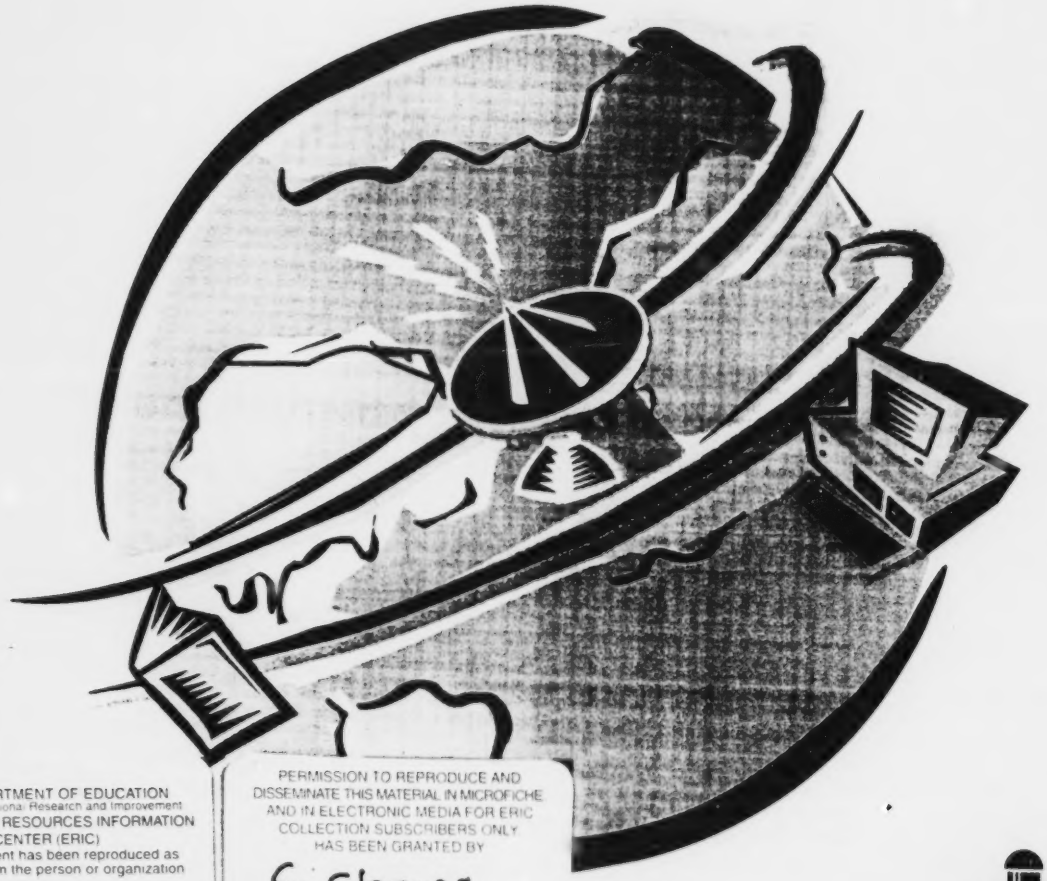

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The Proceedings
1999 Educational Conference
&
86th Annual Meeting

June 20-22, 1999
Cincinnati, Ohio

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In Appreciation

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Sunday, 20 June Sessions

Is There a Pot of Gold at the End of the Rainbow?

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President
Sebesta Blomberg

Charles Strutz
Vice President Finance
University of Maryland

Frank Brewer
Associate Vice President
University of Maryland

For many Colleges and Universities, the availability of funds for maintaining and modernizing Central Utility systems is becoming more and more difficult to obtain. Facility managers are faced with the situation of having utility infrastructure that has exceed normal expected useful life of the major equipment components and is operating inefficiently. In addition, current and future regulatory requirements for operating such facilities are placing increased burdens on the staff who may not be able to acquire the skills required in the daily intricacies of operating and regulating such facilities.

Institutions have the capability to pursue partnerships with private companies for the purpose of owning, operating and modernizing these central utility facilities. Further, district energy companies and un-regulated subsidiaries of investor owned utility companies are actively pursuing the purchase and operation of large energy systems from colleges and universities such as those attending this conference. In most cases, this pursuit is based on doing it cheaper, better and without the need of the institution providing capital for the infrastructure renewal. If pursued properly, competitive forces in the market place offer specific economic advantages to the institution to receive guarantees for items ranging from the cost to construct and expand the facilities to guarantees for fuel efficiency, future operating costs, energy supply and cogeneration system performance. The status of electric deregulation could also significantly increase the value of the plant to an outside investor/operator. In many instances, energy and operating efficiency improvements may be sufficient to fund a majority of the modernization expense.

This presentation will deal with how, over the past three years, the University of Maryland, faced with continual denial of funds for infrastructure renewal, developed and implemented a partnership for infrastructure renewal. Market forces through competitive procurement were allowed to

work to the advantage of the University of Maryland as we structured the partnership that answered the underlying question by confirming the "Yes there is a pot of gold at the end of this rainbow."

Overview

For nearly a decade, rebuilding infrastructure has been a major topic of debate for the University of Maryland. Confronted by intense competition for increasingly limited funds, facility management was being called on to operate and maintain aging facilities on limited budgets. In addition, expansion and campus development fueled by contributions and State funding were forcing the University to face shortages in utility infrastructure distribution and equipment capacity.

Maryland's focus on utility infrastructure renewal came at a time of radical changes in the structure and operation of the energy industry, the onset of non-regulated energy providers searching for the opportunity for public / private partnerships that benefit both parties and the State's desire for outside capital which would not impact the University debt rating.

The potential capital requirement of infrastructure renewal, capital budget constraints, and utility market changes are forcing managers and administrators to look for creative financing mechanisms, innovative ownership and management structures, as well as competitive procurement strategies.

Starting with a Utility Master Plan

After completion of the campus space master plan, the next step for Maryland's Facility Management was to begin to look at and evaluate the utility infrastructure, its current condition and the capability to serve the anticipated loads in the future. The initial utility master plan was developed on the premise of maintaining the current systems in a condition and of adequate capacity provide cost effective and reliable utility services for the 20 year planning horizon chosen by the institution. The first step in developing this Master Plan was to prepare a basic Utility System Assessment—a thorough evaluation of the utility system that identifies both system requirements and the resources available to meet those requirements. The purpose of this section is to provide an overview of the factors that were examined and the issues addressed when assessing the opportunities available for the University of Maryland Utility Systems. The results of the Utility System Assessment also provided a strategic framework for evaluating the advantages and system requirements for the alternative procurement of utility services.

Assessing Facility Condition

Assessing a facility's utility systems begins with evaluating the current condition of each system. To gain a thorough understanding of the physical plant resources, the remaining useful life of major equipment and the condition of all auxiliary systems must be identified, along with the plant's firm and peak capacities. The following areas should be addressed:

- What is the total capacity of the system?
- What is the "firm" capacity of the system?
- Is the firm capacity sufficient to meet the expected loads on the system?

- What is the condition of the existing equipment?
- Has maintenance been deferred due to funding limitations?
- What is the average useful life of similar equipment? Has the equipment served beyond this average useful life?
- Has the system experienced outages due to equipment failure? What is the frequency of those outages?
- Have operating and maintenance costs been increasing? Is there an increasing need for maintenance and equipment replacement?
- What improvements must be made in order to assure reliable service over the planning period?
- Is the existing delivery system capable of delivering in the appropriate levels and conditions to assure reliable service?
- What improvements are needed?
- Does the system meet all regulatory criteria? If not, what type of improvements are necessary to meet the current and any known future regulatory requirements?

Documenting Facility Performance

At the same time that it is determining the condition of its utility systems, one must assess the performance of those systems, that is, their ability to meet the institution's load requirements. This phase consists of gathering information relating to the current operation of the facility, as well as information relating to the distribution systems, the metering systems and the management and operation systems. Basic information that should be assembled includes:

- Energy User Data:
  - Develop Building Listings identifying building types, occupancy schedules, type of mechanical and electrical systems, age, and all recent or projected retrofit or modernization projects for the structure.
  - Identify changes in building population on a five, ten and twenty year calendar.
  - Identify types of energy required including delivery pressure and conditions.
  - Identify systems that can control energy consumption within the building and reduce instantaneous demand on the systems.
  - Develop monthly and annual load profiles based on occupancy and weather conditions.
  - Identify cost recovery mechanisms for the cost of energy supplied to the individual buildings.
  - For decentralized heating, cooling or electrical supply systems, document all operating and maintenance costs associated with each system.
- Distribution System Data:
  - Document system loading and utilization factors for each type of energy distribution systems.
  - Identify and document all operating costs associated with each utility over the past five years. This should include costs that may be covered through other accounts such as blanket insurance policies, retirement programs, and maintenance labor pools.

- Identify and document operating constraints of the systems. This could include capacity limitations, reliability concerns, age and deterioration issues and environmental concerns.
- Define methods for cost recovery associated with the distribution systems. This will usually include, as a minimum, expansion cost to cover new loads, repair and replacement expenses, and debt recovery opportunities.
- Document efficiency of the distribution systems and determine maximum and minimum operating points that will still satisfy the energy user's criteria.

- Utility Plant System Data:
  - Document operating criteria for the facilities. What are the expectations for delivery of utility supply from the plant?
  - Assemble the operating constraints and review the requirements of all environmental permits for the facility. Establish contact with permitting agencies that regulate the operation.
  - Assemble and evaluate all utility and fuel supply contracts, including ash disposal contracts.
  - Document and evaluate all operating costs for the facility. This must include costs which may not have been included as part of the operating expense of the facility.
  - Identify sources of funds for operating, expanding or replacing the central plants. Document how any type of deferred maintenance program may be effecting the future reliability of the facility.
  - Evaluate and document reliability of the facilities including a determination of the expected useful life of the major components within the plant.
  - Determine operating limitations and capacity constraints of the components within the plant.
  - Document and review operating guidelines for the plant. How is the facility staffed and what are the procedures to cover unscheduled and scheduled equipment outages. What are the procedures for regular, periodic maintenance of the systems and equipment?
  - Determine operating and production efficiency of both the plant as a whole, and each piece of energy production equipment. Compare the results to other benchmarks for similar types of systems.

Projecting Future Capacity and Consumption Requirements

A critical component of the Utility Master Plan was the determination of the ability of the facilities to meet projected load requirements with sufficient reserve capacity to assure continued service during periods of forced or scheduled outages. The costs and future capital cash flows associated with meeting inflated capacity requirements can severely impact other financial commitments. Likewise, the financial impacts of either consuming significantly more or less units of energy on an annual basis may also impact financial and contractual obligations.

Firm plant capacity was defined as the plant capacity with the largest production unit out of commission. Firm plant capacity is not just a function of the reliability of the production units.

All ancillary systems were reviewed to confirm that reliability exists throughout the plant. Firm plant capacity had to be adequate to meet the normal expected peak demands during normally expected weather extremes. Firm plant capacity requirements were not expected to meet capacity requirements during the extremes that may occur for less than 40 to 80 hours per year. Meeting such expectations would not be cost effective.

Where future load requirements are expected to be greater than current load requirements, care must be exercised to assure that over-expenditure of plant capacity does not occur. At the same time, the plant basics must be suitable to expand future plant capacity in the most cost-effective manner.

Upon completion of the Utility Master Plan, the University prepared and presented information to the University Administration and State Legislators documenting the need for Utility system renovation and expansion. The plan was developed and presented with two basic parts:

1. Short term or interim improvements consisting of electrical distribution and switch station improvements, steam and condensate distribution system repair and replacement and critical steam plant repairs and replacements. All short-term elements were critical to continued reliability and capacity needs for the next 1 to 5 years. Capital need for the University totaled approximately $10 million.
2. Long term improvements consisting of additional electrical, steam and distribution improvements, replacements and capacity expansion to accommodate expected utility loads over the following 5 to 20 years. Capital needs for the long-term program totaled an additional $40 million dollars for the University.

Moving Towards Strategic Business Planning

In 1994, the University was directed to search for alternative methods of financing the utility infrastructure project that would provide reliable utility services for the campus without the direct requirement of State or System financing and that would not impact the University's debt rating or ability to finance ongoing academic programs. Concurrently, the University did receive approval to proceed with the short term projects to assure continued reliability of the utility system until the larger project could be implemented.

Thus started Phase II of the program for the University. During 1995, the University retained consultants to begin the process of evaluation, planning and implementation of a program for the innovative procurement of services to construct, modernize, operate and maintain the utility infrastructure for the University of Maryland, College Park. The process we will describe here has since become referred to and promoted by APPA as "Resource Reallocation—Utility Services Assessment."

Initially the consultants developed screening analysis of the facility to identify potential opportunities for the utility infrastructure and facility energy consumption which could result in substantial savings in operation and maintenance costs, the excess funds of which could be used to fund a portion of the infrastructure renewal project. Development of these screening analysis were part of an "Out of the Box" process where business "as usual" was assumed to not be an option. Concepts dealt with included:

1. Self-generation of various configurations

2. Centralized cooling concepts
3. Central steam plant modifications
4. Steam, electric and chilled water distribution modifications
5. Building demand side management benchmarking
6. Building energy supply alternatives
7. Energy procurement alternatives
8. Modifications to staffing, operation and maintenance procedures

Each modification was reviewed during several brainstorming processes for viability and technical impact to determine the most probable alternatives that could lead to successful implementation. This reduced list of alternatives was then moved forward for complete development of a detailed business plan for each alternative. Ultimately, the alternatives were narrowed to create the recommended "Internal Option".

Internal Option and Alternative Ownership and Management Structures

The Utility Master Plan and Alternative Screening Analysis provided the foundation for the development of a long-term strategic business plan for providing reliable, cost effective utility services to the University of Maryland Campus. By documenting system performance, identifying system requirements, evaluating the resources available to meet those requirements, and delineating the legal and financial parameters under which the institution's facility operates, the Business Plan enabled the University of Maryland's planning team to prepare and present a long term plan to University Administration and State Funding Authorities and Legislatures for continued operation of a reliable utility system under the *existing ownership and management structure*—its "Internal Option."

This "Internal Option" played an important role in the development and implementation of the strategic plan in two ways. First, it enabled the institution to understand the costs of continuing utility system operation under the existing ownership and management structure. In addition, the Internal Option serves as a reference case against which other ownership and management structures can be measured. Put simply, if the alternatives yet to be pursued were rejected by the University or the State, the internal plan set the benchmark of what would be expected for funding and operating budgets for the systems to meet the University objectives for reliable and cost effective utility systems.

Policy and financial considerations would determine the question of structuring the ownership and management of an institution's energy facilities later during alternative analysis. It was critical that these issues be identified, fully analyzed, and weighed against each other before embarking upon a facilities development project. Each situation is different.

A basic policy issue also being addresses by Maryland was whether the institution wants to be in the utility business. There may be good reasons to turn control of its facilities over to another entity. After all, running a power plant is an expensive proposition and requires maintaining a skilled staff on duty twenty-four hours a day, 365 days per year. Moreover, purchasing fuel is becoming more complicated, the risks associated with system construction and operation are becoming greater, and compliance with environmental laws is becoming more difficult and expensive. Rather than contend with all of these and other factors we had to consider all the pros

and cons associated with turning over the management of the facilities to another party, or by purchasing utility services from a local utility. Early in the process, the University of Maryland and the State made the commitment to not sell utility assets to a private party. While it may not be best for us to continue as operator of the utility systems, not owning this asset could place Maryland at a distinct competitive disadvantage in the future by loss of competitive procurement alternatives. As you consider ownership and management alternatives that would work for your institution it is important to consider the advantages and disadvantages of each option.

Alternatives for ownership and management were conceptualized as a spectrum, one end of which is total private ownership and management and the other end of which is total institutional ownership and management. Various options for partnerships were available along the spectrum:

- *Internal Option:* Institution owns and operates utility systems
- *Public/Public Partnerships:* Public or quasi-public entities share or trade services or form cooperation agencies
- *Public/Private Partnerships:* Institution hires private entity to manage and operate facilities
- *Lease Financing:* Institution transfers facilities to entity, which issues certificates of participation to investors and leases facilities back to the institution
- *Build-Own-Transfer:* Private entity finances, constructs and operates facility for a given term. At the end of the term, facilities are transferred to the institution
- *Pure Privatization:* Institution sells or decommissions facilities. Private entity provides all utility services and standards.

Completion of the Business Plan documented three basic issues;

1. Current and future utility and energy costs for the University were developed which identified costs over the twenty year planning horizon. These future costs were developed using DOE energy cost projections, campus growth projections and energy consumption trends and projections of reasonable maintenance costs using industry benchmark standards.
2. Development of capital needs over the planning horizon given the age of the existing systems and projections in growth of utility system needs.
3. Conceptual level comparisons of alternative utility configuration including self-generation, centralized cooling systems, modified steam plant configurations and alternative energy procurement methods.

For the University of Maryland, an alternative consisting of centralized cooling for the Engineering / Science corridor and base load cogeneration with heat recovery,was identified that would result in substantial savings in future operating and energy costs. It was projected that these savings would be adequate to fund nearly $60 million in infrastructure investment required to implement this program. The risks to the University included the concern of successfully implementing this program within the budget estimates established for the program and the ability of the University to efficiently and reliably operate the combined cycle cogeneration technology and steam driven central cooling systems.

This "Strawman" internal plan set the standard for moving ahead with the directive of the State to first search for an innovative partnership that would result in off-balance sheet financing for the project.

Competitive Procurement and Contract Development

With the Business Plan complete and approved by University Administration and Regents, the University proceeded with the process of issuing, selecting and contracting with third party providers to modernize, manage and operate the electric, steam and chilled water utility systems for the campus.

A critical element of the process was the development and acceptance of key goals, objectives and evaluation criteria of the University and publishing the information as part of the Proposal Request. While this is important to allow the vendors to respond with the best proposal possible meeting the University criteria, it is equally or more important the University has a consistent measure during the process. The effects of administrative changes, legislative changes and personal opinions need to be filtered throughout the process to keep the selection committee focused on the evaluation and negotiations.

Several companies and teams submitted letters of interest to the University of Maryland to be included in the solicitation process. As information was released and the final Request for Qualification and Request for Proposal were completed and distributed, it became obvious to several organizations that the qualifications and financial stability of the respondents would be set very high. The University was very concerned that, for the project to be a long-term success, the financial and technical qualifications had to be of the highest quality to assure success.

Each state and each University will have varying methods of procurement for these types of projects. It was not correct to call these bids as the detail of the deal and the final contract terms would truly be defined through intense negotiations, contract clarifications and document development.

After review of the vendor qualifications, nine companies and teams were selected to move to the proposal phase of the process. Of these nine, three submitted technical and financial offerings to the Request for Proposal.

Extensive efforts were required for review of the offerings. Initial offerings all provided substantially different solutions and alternatives to address the utility requirements of the campus. Over the next twelve months, through extensive clarifications, discussions, further development of technical proposals, and contract document drafting, the University and Vendors were in a position to request and submit "Best and Final Offers" which clearly priced the technical proposal as developed and proposed by each Vendor.

Contracts developed for the project were structured in a manner to meet the goals of reducing business risk for the University, retaining long term ownership of the utility asset by the State or a State instrumentality, allowing tax exempt financing to reduce the cost of financing and meeting criteria of the most recent IRS ruling regarding private use. MEDCO, the Maryland Economic Development Company became the corporate entity to maintain separation between the Vendor and University for purpose of financing, ownership and operation. Overall, 6 contracts were developed and negotiated with the Vendor. These included:

1. The Management Operations and Maintenance Agreement between MEDCO and the Vendor. The contract provided the terms for 20-year maintenance, operation and management of the utility systems up to the building walls as the point of demarcation. This contract

covered all guarantees of reliable service and the resulting damages and set off required assuring reliability of supply.

2. The Design / Build / Commission Agreement between MEDCO and the Vendor providing the terms of designing, constructing and commissioning the improvements required and proposed by the Vendor.
3. The Energy Services Agreement between MEDCO and the University providing the terms of sale of steam, electricity and chilled water to the University Buildings. This contract with essentially provides tariff rates and conditions for payment of utility services by the University to MEDCO when said utilities are delivered to the University buildings.
4. A Ground Lease Agreement between MEDCO and the University transferring the current utility assets to MEDCO and providing access and rights for installation and maintenance of the system improvements.
5. A Fuel Services Agreement between the Vendor and the University under which the Vendor provides services as fuel broker for the University responsible for reliable and economical dispatch of all fuels and electricity to the Campus.
6. A Transition Agreement between the University and the Vendor transferring and contracting University employees to the Vendor and establishing the University rights for sale of other services to the Vendor including water, sewer tariffs, operations coordination, campus disruption coordination and other similar types of activities.

The Best and Final Offers were submitted by each vendor based on the agreements listed above, and in such form that the contract would be executed as is by each Vendor if approved by the State Board of Public Works.

Following the submittal of Best and Final Offers, the Evaluation committees completed final review of the technical and financial proposals and provided a recommendation for award to the Procurement Officer. This final recommendation was made within a three-week period of receiving the final offer. Vendors were then debriefed and allowed to protest the recommendation if so inclined. After these debriefings, no vendor submitted a formal protest within the allotted time period. With no protest, the Procurement Officer moved forward its recommendation to the full Board of Regents and ultimately to the State Board of Public Works for Approval. This approval was received on April 21st.

Managing the Political Process

The entire process of building and selling the "Utility Business Plan" and of managing an outsourcing procurement process such as the one the University of Maryland has just finished is no small task. Every department will be impacted by the process either directly or indirectly. Each of those areas will have a specific interest and/or stake in the results of the plan, and depending on the project, must be brought into the process at key periods to be heard and to become part of the success of the project. These stakeholders will include administrators, facility managers, financial officers, planners, public relations, human resources, state agencies, legislatures, environmental groups, the local utilities and neighborhood groups.

Implementation

The implementation of this major infrastructure renewal project at Maryland will result in the single largest utility project in the history of the University. Elements of the project will require continual coordination and review. Substantial excavation for electric, chilled water, steam and condensate distribution systems have the potential to create substantial disruption of the campus. Transition will consist of the following elements:

1. Initiation of environmental permitting for the improvements. Environmental permits will require coordination and completion of the campus Title V combined emission permits.
2. Coordination of transition of employees in accordance with vendor contracts.
3. Insurance rider development and execution
4. Fuel management and agreement transition
5. Documentation and land survey as required for ground lease execution
6. Development and execution of financing and bond agreements
7. Execution of utility metering and tariff rider finalization for utility agreements
8. Establishment of coordinating committees
9. Scheduling of all activities
10. Design and documentation for project execution

Conclusion

Alternative ownership and operating structures exist for institutions that can improve operations and offer enhancements to University financial alternatives. It is equally important that both long term and short term needs of the institution be met with any transaction. Great care must be taken in the development of such a venture to assure that all interests are aligned and that objectives of the institution are met.

For the University of Maryland, aggregation of the Electric, Steam and Chilled water utility systems into a single project, capitalizing on the savings in operating and maintenance costs of new technology investment in the campus resulted in more than $120 million dollars in savings over the twenty year life of the management and operations agreement. All of this insured the fund availability from current utility system expense allocations to pay for the $71 million investment in infrastructure systems required to assure continued reliability of the services.

In conclusion, the success of the transactions at the University of Maryland has confirmed that "there was a pot of gold at the end of this rainbow."

Year 2000 Computer Issues Seminar

Joe Spoonemore
Director of Physical Plant
Washington State University

Michael B. Montgomery
Facilities Management Information Systems Coordinator
Purdue University

Robert J. Rusch
Chief Electrical Engineer
Stanley Consultants, Inc.

1. **So—What's the Big Deal?**
   - Millennium Bug Cartoon
   - Recent Newspaper scare stories
   - "Projected Year 2000 Problem Costs"
   - International Compliance (Chinese airline approach and pirated software dilemma)
   - Federal preparedness
   - The National Guard has been informed that they will be on full alert to deal with potential civil unrest.
   - 25 billion microchips in the US. 1 million software programs
   - $600 billion internationally to "fix the problem," ± 60% devoted to testing.
   - $3 trillion potential for litigation—IRDA and State hold-harmless legislation
   - Every single computerized device, PLC or system has the potential for the incorporation of a non-compliant RTC time/day chip. The BIOS that interprets RTC info for the volatile OS clock may also be non-compliant.
2. **What's the Worst Thing that Could Happen?**
   - Power Plant failure on campus
   - Commercial electrical power failure
   - Tantamount to losing the sun in our modern society
   - Nuclear power plants have been tested and do not appear to be at risk
   - Water Power (Avista Corp) has tested all of their generation facilities and they are compliant

- On a national level the projection is for a one to two percent failure rate
- State of Washington planning on 72-hour interruption generally and a seven-day outage for captive groups such as hospitals and penitentiaries.
- General computer hardware or software failure
- If a computer fails to 1900 or 1980 or 1964 or whatever, then the computer attempts to calculate a lease payment, for instance, using negative integers and either bills for humungous back payments, no charge or just crashes.
- Programmed maintenance dates ignored
- Wrong dates on Faxed legal documents (bids, bid amendments, correspondence)
- Credit cards with "00" expiration dates may be misinterpreted
- Confused ATC/IFR flight plans
- 40 States have passed legislation that insurers will not have to cover losses attributed to Y2K systems failures.

3. **I.T. Versus Non-I.T. Dichotomy**

I.T. (administrative systems)—DIS

- COBOL
- Approximately $1 million spent on campus to date checking thousands of lines of code and making appropriate compliant enhancements
- On schedule for compliance
- Departmentally generated or purchased programs—Software AG "Entire Connection"
- Point-of-sale equipment
- Payroll, personnel, accounts payable, accounts receivable, etc

Non-IT (embedded systems)—GA

- All Colleges and Departments have been contacted and a procedure established to survey, test and remediate non-compliant systems.
- We are on schedule and have discovered some older (pre-1990) systems that are not "486," Pentium or newer that will not automatically rollover to 2000. We have not discovered a system that will fail totally and be incapable of restarting or manually resetting to 2000.
- A partial list of facilities related and research related systems that have been tested for compliance are as follows:

PCs
Security alarm systems
Card key systems
Elevators
Vehicles
Traffic lights
Fire detection and suppression systems
Power plant boiler controls
Building clock systems

18

Parking gates
Bar code fire extinguisher certification system
APU/UPS equipment
Plant radio communication equipment
Computerized auditorium light dimmer systems
Computerized general lighting systems
Computerized sign fabricator
Fresh water pumping equipment, chlorinator, fluoridator
Electrical feeder tripping relays, etc
CAD plotters and printers
Variable speed pump controllers
Underground storage tank monitors and pumping equipment
Street lighting
Telephone switch
Faxes, copiers, video cameras and VCRs
Sewage lift stations
Chillers
Thermostats
Postal scales and meters
Hospital lab and critical care equipment (heart defibrillators)
Gas chromatograph mass spectrometer, high pressure liquid chromatograph, spectrometer, luminescence spectrometer, radio chromatograph
Growth chambers
Satellite boiler controls
Telephone systems—Dictaphone 4000, 4 years old, non-compliant

4. Is January 1, 2000 the Only Date to Worry About?

- No, but it is the primary concern
- There are seven other primary dates of concern and several dozen secondary dates
- Other dates are noted on the CAHE/WSU web site
- Could spend the rest of your life checking dates. One thing is for sure, if one date does not pass the test then the others are suspect and any software run on such equipment will almost certainly fail.
- Pivot dates, end of file dates

5. What Devices Are Suspect?

- Anything that uses electricity or is battery powered.
- Anything that may use computer logic. Computers manufactured prior to 1992 or before the 486/Pentium introduction.
- Anything that controls life/safety functions:
  Life support equipment
  Heart defibs
  Power Plant

Automatic transfer switches
Emergency generators

- Anything that is critical to service delivery

6. Why Do We Test?

- Composite systems with variety of BIOS, OS, and RTCs
- Avoid catastrophic failures:
  Life/Safety
  Loss of data
  Data contamination
  Expiration of licenses
  Program malfunction
  Erroneous output
- Testing challenge
  All errors will not be found
  Quality assurance is difficult to enforce
  Applications interface and network relationships difficult to establish
  Embedded dates are often difficult to find and are hidden in other #'s
- Nuisance/Annoyance issues:
  Fax
  Microwave
  VCR player and camera
  Time/date clocks
  Programmable thermostats
- Service/product delivery stream

7. How Do You Test? Can You Fix Your PC?

- NSTL testing procedure
- Web site testing procedure
- Commercial for-fee testing programs
- Dell – compliant since 1997
- Macintosh – MOS good from 1984 to 2040 (some say 29940)
- Gateway's based on Pentium family are compliant
- Compliant Software
  Windows 95 can download fix
  Windows NT and 98 OK
  Microsoft Excel 5.0 and above
  Novell NetWare 3.12
  Lotus 1-2-3 for Windows Rev 4.01 and above
  WordPerfect for Dos 5.1
  WordPerfect for MAC 3.1
  WordPerfect for DOS 6.0
  WordPerfect for Windows 6.0

WordPerfect for Windows 6.1 and above
Non-Compliant Software
Windows 3.1—out of luck!
Fox Pro 2.6
Lotus 1-2-3 for DOS Rev 3.1
Microsoft Works for DOS 3.0
Microsoft Works for Windows 3.0
WordPerfect Office 4.0
Intuit Quicken—DOS versions prior to 5.0 are not supportive after 99
Quicken for Windows 5 or 6 or Quicken 98 (release 1,2,or 3 can not perform on-line banking after December 31, 1999)
Free update for Quicken 98 available now

8. How Do You Confirm Compliance?

- CAHE website—confirmation for new purchases
- CAHE website—confirmation for existing hardware and software
- Owner testing and posting of results on website
- Check manufacturer websites and Federal GSA Product Compliance Listing

9. Embedded Systems Checklist

10. Risk Assessment Matrix

11. Y2K Websites

- WSU/CAHE/Y2K http://cru.cahe.wsu.edu/y2k
- Washington State http://www..wa.gov/dis/2000/y2000.htm
- Building Owners and Managers Assoc.http://www.boma.org/year2000
- Legal Issues http://www.Y2K.com
- GM Year Test Procedures http://www.selinc.com/pdfdocs/gm_test_proc.pdf
- GSA(product compliance) http://y2k.lmi.org/gsa/y2kproducts/search.htm
- Electric Utilities http://www.euy2k.com
- WWP http://www.avistacorp.com
- Y2K Bug http://www.thesitefights.com/wepatrol/mil_bug.gif

12. Information and Readiness Disclosure Act

- SB 2392 "Good Samaritan Bill (not Clinton)"
- Signed by President Clinton Oct 19, 1998
- Retroactive back to Jan 1, 1996
- Active until July 14, 2001
- Hold harmless agreement between state agencies

13. Contingency Plans and Emergency Procedures

- Plan on 72 hour interruption of commercial electrical power
- Seven (7) day interruption plan for prisons, hospitals, etc
- What will you do if . . . .?
- Emergency food, water, heat, light, sanitary facilities, fuel, etc.

14. Compliance Versus Readiness

- The WSU approach is similar to the Cargill approach with its 922 plants.
- They will seek 90% compliance up front and have well thought out work-arounds ready to go.

15. Take-aways from This Session

- BOMA has petitioned Pres Clinton to change New Year's Holiday from Friday December 31st to Monday January 3.
- The rule-of-thumb is that anything manufactured prior to 1992 will likely fail. My VCR was manufactured in 1986 and works just fine in 2000.
- Y2K *will* arrive as scheduled!
- You *will not* be 100% compliant.
- You *must* be 100% ready.
- Don't panic—yet.
- Intimately involve and educate:
  Staff
  Administration
  Customers
  Vendors
  Community
- Legal challenges will likely occur but the best defense is "due diligence"
- Prepare comprehensive contingency plans
- Keep your eye on the WSU/Y2K/CAHE website.
- Don't assume that if everything functions normally12:01 a.m. on January 1, 2000 that you are out of the woods.
- Etch-a-Sketch
- Think about changing the New Year's holiday from Friday December 31 to Monday January 3
- Watch for scams

22

Raise It Up A Notch—Through People

George B. Wright
President
The George B. Wright Company

You are in a SERVICES world. You are not manufacturing products for resale. You are striving to find a BALANCE between getting the work done through others, and treating the people right. This means it is a PEOPLE and PERFORMANCE world.

Illus: All articles in *Facilities* magazine were "technical" articles.

A. Break Down the Barriers within the department. Every job, every person contributes and has value.

Illus: Customer Flow Chart

Illus: Whenever any employee is standing before a customer, at that moment in time, he/she is the department.

1. Start with your direct reports. There must be cooperation. Many just give "lip-service" to teamwork. Point out instances—challenge them.
2. The phrase, "he/she is just a custodian-grounds person; he/she is just an electrician, just a plumber," is demeaning to everyone. Every task they do is important. Everything they do is honorable and needed. Wherever people gather or congregate, you are there.

B. "Doing More With Less" Is a Negative

1. It is demeaning to the employer. It is discouraging to the employee. It is depressing to the employee. It is said without thinking.
2. Choose positive words of expression/communication.
3. Stay away from words that confuse your people (i.e., paradigm, downsizing, outsourcing).

C. Technology Is a Help—But People Make the Difference

1. It is the people using technology that makes technology so helpful.
2. Technology keeps changing, but relationships between people calls for basic common sense.
   a. E-mail—too much can be a negative.
3. Face today's challenges with creativity and practical applications.
   a. Define tasks
   b. Concentrate work on the tasks
   c. Define performance

d. Develop partnerships with employees
e. Implement a continuous learning/training program.

D. There Is Enormous Joy In Building A Team

1. Pride in individuals—pride in the department.
a. Cite the "victory" performances.

2. Keep records on outstanding performances. List those things done during emergencies, disasters, catastrophes (i.e., hurricanes, earthquakes, floods). These are enormous victories.

3. Cite the victories in Customer Relations "Recognition shows people you care."

4. Get out in the workplace. "The best leadership takes place where the work is being done."

5. Capitalize on—recognize and use the diverse talents of your people.

6. Let them educate you in certain areas—on certain subjects—"Everybody is smarter than anyone."

7. Ask for suggestions. There is so much common sense in a Facilities Department.

8. Newsletter

9. Be interested in them as persons, be interested in their families.

10. Show them you care—"If you want to get in my mind, you will have to come through my heart."

"The greatest asset we have is people." Our plans are carried out—or fail to be carried out—through people.

Monday, 21 June Sessions

Culture Shift a Mandate for Leaders

Glenn R. Smith
Director of Facilities Services
Bryn Mawr College

It will become readily apparent to the reader that this treatise relies heavily on the ideas, words, and wisdom of many authors, all of whom are far more learned and eloquent than I. I could make the case that I subscribe to the theory that "people of good judgment seldom rely wholly on their own." But, in truth, my writing style probably stems more from my own sense of inadequacy as an authority figure and writer, and thus my need for constant reinforcement and validation. I am not a researcher or consultant. Without dozens of case studies to draw upon, I rely on the research and findings of others. I *am* a practitioner and student. Throughout much of my 24-year Navy career, I actively engaged in movements committed to changing the organizational culture away from the traditional military, command-and-control leadership approach. As a student at the National War College in the mid-1990s, I studied various aspects of culture change—particularly as they impacted the military. The ideas presented in these pages, whether my words or someone else's, reflect truth as I know it, based on these personal experiences. The idea of a culture continuum is the best way I have found to capture, on one chart, the major forces that shape organizational culture. Hopefully this approach will allow the reader to better visualize the cultural extremes that can prevail at any institution. Culture is a powerful force affecting organizational and individual performance. But culture can also be a conscious choice, and we, as constituents, have the opportunity, the right, and, most importantly, the obligation to future generations to make it a wise choice. We can elect for the "winds of change" to take us by storm and do our best to react, or we can try to harness those winds and use them as a force of positive transformation. For the past two years, I have been the Director of Facilities Services at Bryn Mawr College, a small liberal arts school for women just west of Philadelphia, where the winds of change are starting to blow. I am excited about the opportunities that lie ahead for the college and the chance for me personally to play a small role in bringing about a positive cultural shift. As you will learn in the pages that follow, we expect it to be a hard, long, but rewarding journey.

Again, I see myself more as a leader and an educator, than a writer. Hopefully, however, I have been able to bring these ideas together in a manner that generates new awareness and insight. With that hope, let me begin with this charge from the movie, "Dead Poets Society." It is the scene where Robin Williams, playing the part of the English professor, stands on his desk and asks:

> Why do I stand up here?...I stand upon my desk to remind myself that we must constantly look at things in a different way. The world looks very different from up here....Just when you think you know something, you have to look at it in another way, even though it may seem silly or wrong....Now, when you read, don't just consider what the author thinks, consider what you think.

The Call for Change

"In many ways, the 1990s are the first decade of the 21st century. We truly are on the threshold of a new era. The world is changing faster and more fundamentally than ever before, driven by the emergence of the new, global, knowledge-driven economy."

The words of Alvin Toffler, Joel Barker, John Petersen, James Canton or some other modern day Jules Verne, referring to scientific advances or changes affecting today's businesses? No, these words were actually written by Donald Morris, a management consultant, and published by the Society for College and University Planning (SCUP) in a book entitled *Revolutionary Strategy for the Knowledge Age.* "Change" and its first cousins—transformation, reengineering, paradigm-shift, reinvention—have become the buzzwords for the 90s. But they don't just apply to business or high-tech industries. As Mr. Morris and Michael Dolence point out in another SCUP publication, *Transforming Higher Education:*

> The Information Age is an epoch where 'higher education' could occupy the pivotal role in society.... Fresh vision is needed to create new delivery systems for learning, new paradigms for financing, and new models for higher education.... Without continued innovation, we may be doomed to fail.

In the 1998 issue of *Forum Futures,* published by NACUBO (National Association of College and University Business Officers), Maureen Devlin writes:

> The future of higher education promises fundamental shifts not only in traditional pedagogy, but also in the way colleges and universities historically have been managed and operated. Leaders of institutions and faculty members are being called upon to rethink their usual approaches to managing, teaching and learning in order to successfully adapt to the ever-evolving environment in which they function.

Exponential advances in information technology, the recent success of for-profit institutions of higher learning, and wide spread societal concerns over the rising cost of higher education demand that those of us in the "education business" reevaluate everything that we are about. It's interesting to observe that the title of the American Association for Higher Education's Magazine of Higher Learning is "Change." Certainly, at the core of the mission of any institution of higher education is the desire to bring about *change* in the minds and lives of its students. Peter Drucker contends that non-profit organizations are "human-change agents"—that their product is a "*changed human being.*" Yet the very term "institution" conjures up images of formally established, in effect "institutionalized" policies, practices, and systems that govern how each college and university attempts to accomplish that mission. As Alan Wolfe succinctly states in the December 4, 1998 issue of the Chronicle of Higher Education, "No institution in America is more resistant to change than the university."

And thus the dilemma takes shape. Change is not only inevitable, but essential and desirable, and yet our institutions of higher education are, by their very nature, highly resistant to internal change. So where do we start? Perhaps at the very place where that resistance resides—the institution's culture.

Culture—What Is It?

The term culture can refer to a number of things, but in the context of our discussions, it refers to the way things routinely operate and the way people interact. Perhaps Alexander Hiam described it best in his book, *Closing the Quality Gap:*

> Culture is often described with terms like philosophy, values, attitudes, and ethics. Culture is reflected in the relationships among employees, the mores and taboos within a company, the legends and stories told, even the language and imagery used when discussing business decisions. It can be transmitted through subtle messages such as the way parking places or offices are allocated or the nicknames applied to managers when they are not listening. It can also be manifested in more obvious ways, such as in the criteria by which advancements and raises are awarded. Culture is a subtle but tremendously powerful influence over everything people do. It can influence not only employees but also suppliers, distributors and others within its reach.

Culture is defined by the unwritten rules, the answer to the question "How does it really work here?" and the "if-then" cause and effect beliefs of the employee population. According to Marshall Sashkin and Kenneth Kiser (*Putting Total Quality Management to Work*), "Culture is the cumulative perception of how the organization treats people and how people expect to treat one another."

In the words of Edgar Schein from *The Dance of Change*:

> Cultural assumptions provide meaning to daily events for people inside a group; they make life predictable, and therefore reduce anxiety. They are taught (in both explicit and tacit ways) to new group members as the 'correct' way to perceive, think, and feel about all aspects of daily life.

The studies of John Kotter and James Heskett (*Corporate Culture and Performance*) show that:

1. *Corporate culture can have a significant impact on a firm's long-term economic performance. . . .* firms with cultures that emphasized all the key managerial constituencies (customers, stockholders, and employees) and leadership from managers at all levels outperformed firms that did not have those cultural traits by a huge margin.
2. *Corporate culture will probably be an even more important factor in determining the success or failure of firms in the next decade . . .* In a world that is changing at an increasing rate, one would predict that unadaptive cultures will have an even larger financial impact in the coming decade.
3. *Corporate cultures that inhibit strong long-term financial performance are not rare; they develop easily, even in firms that are full of reasonable and intelligent people.* Cultures that encourage inappropriate behavior and

inhibit change to more appropriate strategies tend to emerge slowly and quietly over a period of years, usually when firms are performing well.

4. *Although tough to change, corporate cultures can be made more performance enhancing.* Such change is complex, takes time, and requires leadership."

While their studies dealt with commercial businesses and corporations, culture has an equally strong impact on non-profit organizations. The important point is to understand that the effectiveness of any efforts to change the output, product, or service of an organization is dependent upon the organizational culture—the interrelationships, interactions, and interdependencies of people, and the written and unwritten rules that govern them. Performance, however it is measured, is directly linked to organizational culture.

Culture as a Continuum

To gain a better understanding of how culture affects an organization, let's break it down into five basic components:

- Leadership styles
- Assumptions about people
- Motivational techniques
- Relationships
- Sustaining forces

In describing how these components influence organizational culture, it can be helpful to view each in terms of a continuum—a scale or spectrum that spans from one extreme to another. Figure 1 depicts such a continuum for each of these five factors. In truth, no culture functions totally at one extreme or the other, but somewhere in between. The issue becomes, which culture model do we most want to emulate—the left hand extreme which we will refer to as the Traditional model, or the right hand extreme—the Stewardship model? What should be our *culture vision*?

	Traditional	**Stewardship**
Leadership Style	command & control	participatory & servant
Assumptions About People	negative	positive
Motivation	punishment/reward	pride/joy of work
Relationships	parent/child	partnership
Sustaining Forces	fear	trust
Leads To	favoritism compliance rules/policies/regulations win/lose or lose/lose decisions frustrated/angry employees dependent employees leveraged power blame short term/reactive results	fairness commitment common sense/sound judgement win/win decisions satisfied employees empowered employees balanced power organizational and personal accountability long term success
Institution Is	stagnant	vibrant, learning, improving
	Easy, Low Risk, and Realistic	***Hard, High Risk, Idealistic***

Before jumping to a conclusion, let's analyze how each of these components of organizational culture function across the continuum. Admittedly, they are interrelated and interdependent, but each have individual characteristics that can help us gain better insight into the tremendous power that the culture has over the institution.

Leadership Styles

The culture of any organization finds its roots in the history of its leadership. Culture, as a force that has become deeply entrenched over time, is a product influenced more by the legacies of the organization's leaders and their individual styles than any other factor.

At one extreme of the leadership spectrum is arguably the oldest and most enduring model—"Command-and-Control." Conceived and nourished on history's battlefields, command-and-control leadership finds its most ardent practitioners among military's elite—Ghengis Khan, Julius Caesar, George Patton, and, perhaps the ultimate extreme, Adolf Hitler. While these names may conjure up images of conquest and oppression, the command-and-control leadership style embodied by these famous (or infamous) leaders became and remains popular throughout all facets of modern society because it gets results—often quick and dramatic results. Command-and-control leadership is generally typified by a pyramid-like, hierarchical organizational structure, with a clearly defined chain-of-command, and autocratic and, at times, dictatorial rule at the top.

It is important to realize that the concept of management as it exists today developed during the days when railroads reigned supreme in this country. As recounted by James Champy and Michael Hammer in *Reengineering the Corporation:*

> In the 1820s, Americans began building railroads, which not only extended and accelerated economic development, but also moved the evolution of business management technology forward. It was railroad companies that invented the modern business bureaucracy—a significant innovation then and an essential one if industrial organizations were going to grow larger than the span of one person's control.
>
> To prevent collisions on single track lines that carried trains in both directions, railroad companies invented formalized operating procedures and the organizational structure and mechanisms required to carry them out. Management created a rule for every contingency they could imagine, and lines of authority and reporting were clearly drawn. The railroad companies literally programmed their workers to act only in accordance with the rules, which was the only way management knew to make their one-track systems predictable, workable, and safe. Programming people to conform to established procedures remains the essence of bureaucracy even now. The command-and-control systems in place in most companies today embody the same principles the railroads introduced a hundred and fifty years ago."

It is not mere coincidence that a majority of the engineers who were hired by and found their way into the management hierarchy of these railroad companies were educated and trained by the nation's military academies.

Peter Scholtes is strongly opinionated about this "railroad-bred" management style:

"A fundamental premise of the 'train-wreck' approach to management is that the primary cause of problems is 'dereliction of duty.' The purpose of the organizational chart is to sufficiently specify those duties so that management can quickly assign blame, should another accident occur."

Over time, one generation of command-and-control style leaders has spawned another. Many have been extremely successful, particularly as the industrial age flourished well into the twentieth century. Certainly, most have stopped well short of the power-induced tyranny of a Hitler, but their apparent successes have not come without an impact on the cultures of their organizations. We will explore these cultural consequences shortly, but first, let's look at the opposite extreme of command-and-control leadership.

Perhaps it is best to start by considering those leaders from history most diametrical to the Ghengis Khans and Adolf Hitlers. People like Jesus, Ghandi and Martin Luther King come to mind. The effectiveness of their leadership has stood the test of time. They too got results, but their leadership style was much different from that which we have defined as command-and- control. They embodied integrity and valued their principles and their vision for their followers above all else. They fought for the common good of the masses over their own self-interest. They saw themselves as servants to their followers. Perhaps it was their ability to see the unique talents, dignity, and potential in the common person, and their desire to release that potential, that best defines their leadership style. For our purposes, we will refer to this style as participative and servant leadership.

Today's bookstore shelves are overflowing with "leadership bibles." Some authors of choice include Warren Bennis, Max De Pree, John Gardner, John Kotter, Peter Senge, and Peter Scholtes, along with many, many others. The wise leader should indeed be leery of the latest fad or leadership style, but there are some common threads connecting the advice flowing from all these authors that may be worth close consideration.

All would probably agree with the four paradigm shifts necessary for effective leaders espoused by Oakley and Krug in *Enlightened Leadership:*

> We must let go of our ego-driven need to have our own answers.
> We must let go of our need for strict control and trust our people.
> We must drop our need to be right.
> We must drop our protective barriers and be open and vulnerable."

There would certainly be universal agreement with Larry Wilson of the Pecos River Learning Center that:

"The whole idea of leadership has turned upside down. Today's leaders are there to serve, rather than be served. They are there to empower people; they don't come to work having the answers. The objective of today's leaders is to help people bring 100 percent of their creativity and courage to bear on the problems of the organization."

Or, as Jesse Stoner-Zemel contends:

> Successful leaders understand that true power comes not from exercising control, but from empowering others.

And Robert Greenleaf's belief that:

> The servant is first . . . It begins with the natural feeling that one wants to serve. To serve first. This conscious choice brings one to aspire to lead. That person is sharply different from the one who is leader first.

All would also undoubtedly support Max De Pree's claims that:

"A leader is one who serves. Leadership is a concept of owing certain things to the institution. Leadership should be about stewardship rather than ownership."

Peter Block has written a book entitled *Stewardship—Choosing Service over Self-Interest.* He defines stewardship as:

> . . . the umbrella idea which promises the means of achieving fundamental change in the way we govern our institutions. Stewardship is to hold something in trust for another . . . [to] build the capacity of the next generation to govern themselves. Stewardship is . . . the choice to preside over the orderly distribution of power. This means giving people at the bottom and the boundaries of the organization choice over how to serve a customer, a citizen, a community. It is the willingness to be accountable for the well-being of the larger organization by operating in service, rather than in control, of those around us. Stated simply, it is accountability without control or compliance.

There is an old adage, "If you give a man a fish, you feed him for a day. Teach him how to fish, and you feed him for a lifetime." The concept of stewardship gets to the heart of preparing for tomorrow, by building on today. It presumes that with every leader resides a sacred trust to prepare the next generation of leaders, equipping them to be more effective than those they succeed.

The concept of stewardship is more than merely a style of leadership. In fact, Peter Block considers it a replacement for leadership. We will consider it a cultural state, which offers an interesting and contrasting alternative to traditional command-and-control. It evolves from a profoundly different set of characteristics, as shown on our culture continuum, which we will now explore.

Assumptions About People

As we continue our exploration of these two opposing cultural models, it becomes readily apparent that very different basic assumptions about people come into play at the extremes. Douglas McGregor labeled these extremes Theory X and Theory Y in his 1960 book entitled *The Human Side of Enterprise:*

Theory X assumptions about workers: The traditional view of direction and control—

1. The average human being has an inherent dislike of work and will avoid it if he or she can
2. Because of this characteristic of dislike of work, most people must be coerced, controlled, directed, or threatened with punishment to get them to put forth adequate effort toward the achievement of organizational objectives.

3. The average human being prefers to be directed, wishes to avoid responsibilities, has relatively little ambition, and wants security above all.

As we continue to explore the attributes of command-and-control cultures, we will see these assumptions play out over and over. For example, if we accept assumption number 3, then a top-down, directed leadership style is the only approach that will work. In fact, leaders working within a traditional command-and-control culture justify their style on the basis that their employees desire a sense of security above all else. Leadership therefore provides a safe haven constructed of clear, detailed direction, well-defined rules, and even better defined consequences for breaking these rules. Occasionally a positive incentive is dangled, but it is still just a coercive technique, not an acknowledgement of value, importance, or potential or the source of any intrinsic motivation. Concepts like empowerment and stewardship cannot germinate when leadership believes that the workforce wishes to avoid work and responsibility. Sadly, these "trendy" concepts have become part of the vocabulary of command-and-control leaders, which only makes them hypocrites in the eyes of their followers, and kills all hope of building trust—an issue we will discuss in much more detail when we get to "sustaining forces."

As Edgar Schein points out in *The Dance of Change:*

> This view of human nature often turns out to be a self-fulfilling prophesy. 'The bosses mistrust me,' employees think. "They make me punch a time clock and watch my every move. What's the point of trying anything different?"

McGregor's Theory Y assumptions offer a remarkable contrast that allows for the integration of individual and organizational goals:

1. The expenditure of physical and mental effort in work is as natural as play or rest.
2. External control and the threat of punishment are not the only means for bringing about effort toward organizational objectives. People will exercise self-direction and self-control in the service of objectives to which they are committed.
3. Commitment to objectives is a function of the rewards associated with their achievement. The most significant of such rewards, the satisfaction of ego and self-actualization needs, can be direct products of effort directed toward organizational objectives.
4. The average human being learns, under proper conditions, not only to accept but to seek responsibility. Avoidance of responsibility and lack of ambition are generally the consequences of experience, not inherent human characteristics.
5. The capacity to exercise a relatively high degree of imagination, ingenuity, and creativity in the solution of organizational problems is widely, not narrowly, distributed in the population.
6. Under the conditions of modern industrial life, the intellectual potentialities of the average human being are only partially utilized.

So, which set of assumptions, Theory X or Theory Y, do we choose to believe? Frequently, the reaction is to believe Theory Y, but with the caveat that "average human beings" do not work at *our* institution. Therefore, coercion, direction, and threats of punishment are necessary "to get these lazy, unmotivated people to do their job." Most employees, however, are astute enough to sense that the leadership has adopted these "negative" assumptions about them, and resentment sets in. Of course, as we are about to see, they have also been treated like and have come to be-

have like children, and so their reactions are frequently "immature" and "unprofessional," which only causes management to shift even more toward Theory X.

In an educational setting, this trend just builds hypocrisy. Every institution of higher learning, by definition, harbors Theory Y assumptions about its students. Students have unrealized potential—to learn, to grow, to discover, to lead productive lives. Many schools have adopted honor codes, implying that students are inherently honest and trustworthy and capable of holding one another accountable to the code. What a contrast this can be to the way college and university administrators tend to view their employees. These employees are quick to detect the inconsistencies, the unfairness, the hypocrisy of it all. Kathleen Ryan and Daniel Oestreich in their book, *Driving Fear Out of the Workplace,* offer the following warning:

> Think about the assumptions that underlie your [institution's] vision, mission, and values. Typically these documents assume the best about the intentions and capabilities of both customers and employees. Next, take a look at the policies, practices, systems, and structures of the organization. Very frequently these are based upon negative assumptions. They assume that people will lie about sick-leave absences, abuse telephones or copy machines with extensive personal use, put themselves rather than the customer first when they control their own scheduling, or produce low-quality products or service unless they are supervised. It is this misalignment that causes people to believe that their leaders say one thing but truly believe something else. Instead of the trust, respect, and creativity talked about in the public documents, people see an organizational culture characterized by mistrust, bias, and control.

In addressing the issue of assumptions about people, perhaps each institution should draft its own declaration, starting with Jefferson's famous words, "We hold these truths to be self-evident...".

Motivational Techniques

The assumptions that management makes about employees lead very naturally to the motivational techniques used to obtain desired results or behavior. According to Bob Nelson, "'Motivation' is one of those words commonly used to describe the fuzzy notion of 'why we do what we do.'" Short of conducting a complete analysis of the works of B.F. Skinner, Frederick Herzberg, and other researchers in the fields of motivation and behavior, let us accept the fact that there remains considerable disagreement over the cause and effect relationships of human activity. But we are most interested here in learned response to certain stimuli—not instinctive reactions. Stephen Covey believes that "our behavior is a function of our decisions, not our conditions." This implies a conscious thought process that occurs between stimulus a[illegible] response. To believe anything else, resigns all human beings to the level of the rest of the animal kingdom, where instinctive action immediately follows each stimulus, with no gap in between to consider alternative actions and make a conscious choice.

Traditional command-and-control cultures resort to positive and negative motivational techniques to prod people into action, since they assume their people lack any intrinsic ambition, incentive, or motivation. For those institutions that believe they have moved away from autocratic

leadership toward a more empowered workforce, they need only look at the subtle "carrot and stick" motivators that they still cling to as part of their culture to get a truer picture.

From an early age we have all been exposed to extrinsic motivators. Our earliest memories can recall rewards and punishments doled out by our parents and teachers in response to behaviors we exhibited. As we grew older, a new set of promised rewards or threatened punishments was introduced in an attempt to mold our behavior to accepted or desired norms. Alfie Kohn calls this "pop behaviorism":

> The core of pop behaviorism is 'Do this and you'll get that.' . . . We take for granted that this is the logical way to raise children, teach students, and manage employees. We promise bubble gum to a five-year-old if he keeps quiet in the supermarket. We dangle an A before a teenager to get her to study harder. We hold out the possibility of a Hawaiian vacation for a salesman who sells enough of the company's product.

Frederick Herzberg's term for this motivational approach is KITA (for "kick in the *pants*"). Positive KITA (carrots), take the form of rewards, and negative KITA (sticks) appear as punishments. As Peter Scholtes points out:

> The problems with both positive and negative KITA, according to Herzberg and Kohn:
>
> - ☐ They don't work (except for short-term, noncomplex conformity).
> - ☐ They are detrimental to the relationships between:
>
> The motivator and the one to be motivated
> The one to be motivated and his or her peers
>
> KITA locks the manager and the subordinate in a parent-child relationship. When rewards are a matter of internal competition among coworkers, they create winners and losers and adversarial relationships among those who should be colleagues."

The command-and-control culture is deeply committed to this approach, with threatened punishments used as often as dangled rewards. The most basic example deals with monetary compensation—the idea that people work because they are paid to work. It follows directly from the assumption that people will avoid work unless offered an enticing reason for working. More and more people are agreeing that money is not a motivator, but the subject of money does bring out some of the worst elements of our human nature—greed and jealousy. As such, talk of money, pay, or compensation can quickly become a de-motivator if not done carefully.

Peter Scholtes offers the following illustration:

> How can mangers motivate their people? They can't.... It is the ultimate management conceit to believe that we can motivate people. Motivation is not some substance we infuse from the outside, like a bone marrow transplant.

All of our efforts to motivate our people are based on commonly shared myths. Managers can, it is true, *de*motivate. Suppose your boss came in tomorrow and told you, 'Because we're trying to cut costs, we are reducing your salary by 50 percent.' Such an announcement might result in less work on your part and a worsened performance. You would be demotivated. Suppose your boss made a different announcement: 'Beginning tomorrow, your salary will be doubled!' Will

you be happy? I should think so! Will you be motivated? Will you do a better job? No, you won't. There may be a temporary 'halo effect' [and you may] put in some extra effort. But this likely will not last long . . ."

Scholtes continues with the following argument:

> Consider the implications of someone being able to motivate you to a higher level of performance through some kind of reward. What this would say about you is that you have been withholding some reservoir of effort, waiting for it to be bribed out of you. None of us would say that about ourselves. Nor do we say that others are holding back, waiting for a bribe. However, with our contests and merit pay and incentive bonuses, we *act* as though it were true.

Performance-based or merit pay systems and bonus pay programs follow the notion that improved performance can be encouraged through the promise of higher pay. Individual performance and individual pay become irreversibly intertwined as these beliefs in human motivation take stronger root. Another example of positive rewards is time-off benefit packages. These assume that employees will work harder or more productively in return for extra time away from work—more vacation time, personal days, incentive time-off, etc.

Underlying these techniques is the assumption that "performance" is under the direct control of the individual and not affected by factors beyond his or her control. Deming and Senge tell us that that is a shaky assumption at best. Interconnected processes in any system of endeavor involve interconnected responsibilities. Individuals find themselves thrust into the middle of various processes, dependent upon the performances of others as well as the delivery of supplies and services—all beyond any one individual's immediate control. And yet we hold individuals accountable for the end products of these processes and evaluate their performance accordingly. Deming's red bead experiment is a classic illustration of why this doesn't work (see *Out of the Crisis,* pp. 110-112). In Kohn's words:

> Assessments of individuals . . . overlook the extent to which any one person's performance grows out of an exchange of ideas and resources with colleagues and otherwise reflects the indirect contribution of the larger system.

Peter Scholtes puts it this way:

> Almost nothing is accomplished by an individual working alone. Most work is obviously a collective effort. Yet even workers who seem quite independent depend on others for ideas, stimulations, feedback, moral support, and administrative services. When an individual makes some heroic effort and accomplishes an extraordinary task, often he or she can take the time to do that work only because others have filled in on the less heroic parts of the job. When someone is credited with a success, he or she is individually honored for what was most likely the work of many.

Another assumption at work here is that supervisors have a consistent, objective methodology for measuring human performance and comparing the value of one employee's contributions to another's. The theory presumes that all employees deserve a unique position on the bell curve of human performance, where those at the top end earn awards, those at the bottom are punished, and the vast majority in the middle receive no special attention whatsoever. Kohn points out that:

> The [performance] assessment will tell as much about the appraiser as the appraisee. It tells how harsh a critic she is, how good a job she expected the employee to do, how well the two of them get along, and sometimes, what basic values they share (or even whether their backgrounds are similar).

Despite the obvious pitfalls in this thinking, most organizational cultures, not just the ones at the far command-and-control extreme, persist in using performance evaluations as a tool for improving individual performance. In truth, performance evaluations often fall more in line with "sticks" than "carrots" when viewed as a motivational tool. Most Human Resource offices justify the need for performance evaluations based on their role in documenting poor performance. In order to take adverse action against a poorly performing employee, that poor performance must be properly documented in the annual performance rating.

Deming concluded that the way in which performance is appraised and rewarded is:

> ...the most powerful inhibitor to quality and productivity in the Western world.... [it] nourishes short-term performance, annihilates long-term planning, builds fear, demolishes teamwork, nourishes rivalry and . . . leaves people bitter.

These are just a few of the extrinsic motivators embraced by traditional cultures. But what motivates people working in a stewardship culture? The simple answer is *intrinsic* motivators. But to get at the heart of what these intrinsic motivators are, management needs to ask each employee some basic questions, like "What excites you about working here?" or "Why have you made the decision to continue to do what you do at this institution?" The answers to these questions provide an indication of those things that promote job satisfaction or job enrichment for that particular individual. In a stewardship environment, employees have an opportunity to make decisions that affect their work environment and rise to the highest levels of their potential. In such an environment, studies have shown that intrinsic motivation comes from things like performing interesting and challenging work, feeling valued for a job done well, receiving recognition from those held in high esteem, and making a meaningful contribution toward the accomplishment of an important mission.

Stephen Covey contends that:

> The highest level of human motivation is a sense of personal contribution . . . people [are] the most valuable organizational assets—as stewards of certain resources—and stewardship [is] the key to discovering, developing, and managing all other assets. Each person is recognized as a free agent, capable of immense achievement, not as a victim or pawn limited by conditions or conditioning.

Alan Binder, a Princeton University economist claims, "Changing the way workers are *treated* may boost productivity more than changing the way they are *paid*." Bob Nelson quotes Catherine Meek, president of the compensation consulting firm Meek Associates:

> If I had to pick one thing that comes through to me loud and clear it's that organizations do a lousy job of recognizing people's contributions. That is the number one thing employees say to us. 'We don't care about the money; if my boss would just say thank you, if he or she would just acknowledge that I exist.'

Kohn suggests three ingredients are necessary to produce intrinsic motivation in workers:

1. Collaboration--helping people work together and promoting teamwork
2. Content--providing challenging, meaningful work for people to do
3. Choice--allowing people to make decisions about the way a task is accomplished

Max De Pree suggests, as an alternative approach to the performance appraisal issue, that "the best way to reward outstanding performance is to raise the level of challenge."

These ingredients tend to be suppressed in a command-and-control culture, but nurtured in a stewardship environment. When they exist, they generate joy of work and pride of workmanship, the prerequisites for quality and excellence. Carrots and sticks can often produce acceptable or satisfactory results, but will not lead to higher and higher levels of excellence. In the words of Rafael Aguayo:

> What we need to cultivate is love of learning, love of work, love of playing. Love of what you're doing leads to mastery and excellence.

And Max De Pree:

> Joy is an essential element of leadership. Leaders are obligated to provide it. . . . places of realized potential spring to life when we move personally and organizationally beyond mastery to joy.

In an article in the *Chronicle of Higher Education,* William Damon confirms:

> As a half-century of research in cognitive and social psychology has shown, ideas are a far more reliable source of motivation for higher human behavior and civic virtue than are sticks, carrots, or social controls. . . . Even ordinary moral behavior—habits of honesty, consideration for others, respect for social mores—is sustained in the long run more by understanding and belief than by reward or punishment. People who have faith in the purpose of a law follow it more reliably than those who simply know what will happen to them if they get caught breaking it.

Or, as Emile Durkheim said: "When mores are sufficient, laws are unnecessary. When mores are insufficient, laws are unenforceable."

Relationships

As we defined earlier, the whole notion of organizational culture centers on the relationships between and among members of the organization, especially the relationships between the leaders and those they lead. In a traditional command-and-control culture, leaders take on the roles of kings or queens and employees become their subjects. Royalty at the top make the rules and ensure compliance by their subjects, while at the same time accepting responsibility, at least in theory, for their well-being. Decisions, even in the most democratic forms of aristocracies, emanate from on high. Directions include not only *what* to do, but *how* to do it.

Perhaps a better analogy is that of parent and child. The parent-figure leader guides, directs, instructs, and attempts to control the behavior and performance of the child-like subordinate. A dependency results that is not unlike the way children are dependent upon their parents. Employees even find themselves dependent upon their employer for their own happiness—

something most employers are unable to provide, even though they try. The distinctions between job satisfaction and happiness become blurred when employees remain in a dependent state. They lose their sense of self-awareness—what Stephen Covey alludes to in the first of his *Seven Habits:*

> Within [man's] freedom to choose are those endowments that make us uniquely human. ... *self-awareness* . . . *imagination* . . . *conscience* . . . and *independent will* . . . Proactivity ... means that as human beings, we are responsible for our own lives. Our behavior is a function of our decisions, not our conditions . . . Highly proactive people....do not blame circumstances, conditions, or conditioning for their behavior. Their behavior is a product of their own conscious choice, based on values, rather than a product of their conditions, based on feeling.

Peter Senge in *The Dance of Change* offers:

> Traditional authoritarian hierarchies foster dependence by placing concentrated decision-making power in the hands of a few and demanding compliance from the majority.

This state of dependency, created by the parent/child relationships which are fostered by command-and-control leaders, cause the proactive muscles of the employees to atrophy. They lose their ability to make choices that effect their work environment or even their own lives. James Champy in his book *Reengineering Management* contends that organizations that encourage a command-and-control style of management "tend to suppress all possibility of human imagination, initiative, decisiveness, dissent, individual responsibility, or real teamwork."

The irony is that leaders/managers supposedly hire adults and expect them to exhibit high levels of maturity, but then treat them like children and wonder why they then behave like children. The employees, on the other hand, want to behave like adults—their sense of self-esteem cries out for it—but they feel oppressed by the command-and-control hierarchy and thus resort to child-like reactions such as whining, complaining or doing anything to get attention, even if they know it is wrong.

At the same time, peers develop relationships that are more competitive in nature than cooperative, as we discussed under "motivational techniques." Traditional cultures encourage individual achievement and behavior through a system of bribes, rewards, and penalties, which effectively discourages teamwork and partnering. Traditional cultures measure the performance of one employee against another, leading to an attitude of "looking out for number one" and statements like "Why should I help you? What's in it for me?"

So what is the "stewardship" alternative to these traditional relationships? Peter Block makes the case for partnering and empowerment:

> In its commitment to service, stewardship forces us then to yield on our desire to use good parenting as a basic form of governance. We already know how to be good parents at work. The alternative, partnership, is something we are just learning about. Our difficulty with creating partnerships is that parenting—and its stronger cousin, patriarchy—is so deeply ingrained in our muscle memory and armature that we don't even realize we are doing it. . . . Regardless of how

> parental our environment might be, we decide whether to support efforts to treat us like children, which expresses our wishes for dependency, or whether to keep deciding that we serve the organization best by creating a place of our own choosing. The well-worn word for this is empowerment. . . . Stewardship is the choice for service. We serve best through partnership, rather than patriarchy. Dependency is the antithesis of stewardship and so empowerment becomes essential.

The relationships that form in an organization that embraces stewardship are thus partnerships among mature, empowered, interdependent adults. Peter Block states that "Organization, literally, is another word for interdependence." Max De Pree believes:

> We have to become competent in relationships. Almost no one is going to have the luxury of working alone. All of us are going to be working in ways in which we're interdependent with other people. And the only way we can do that effectively is to build competence in relationships.

According to Stephen Covey, interdependence is the highest form of maturity (above dependence and independence), despite the fact that "the current social paradigm enthrones independence, [putting it] on a pedestal, as though communication, teamwork, and cooperation were lesser values." Covey goes on to point out that:

"Independent thinking alone is not suited to interdependent reality. Independent people who do not have the maturity to think and act interdependently may be good individual producers, but they won't be good leaders or team players. They are not coming from the paradigm necessary to succeed in marriage, family, or organizational reality."

What is this interdependent, organizational reality he refers to? It is a systems thinking approach to management advocated by W. Edwards Deming, Peter Senge, Peter Scholtes and others. It is an understanding of the complex, intertwined processes at work in any organization and the need for shared responsibility and accountability and cooperation among the people who work these processes. Synergy and optimization can only result when people understand the importance of their role in the overall system, how that role affects the accomplishment of the organization's mission, and are empowered to make decisions and exercise judgment when conditions dictate.

Finally, one must not be misled by an institution that claims to be "one big happy family." The concept that "We can make you *happy* here" is condescending and implies that employers have responsibility for the happiness of their employees and the power to provide this happiness. This is a dangerous trap. Moreover, the concept of "family" implies parent and child relationships, where senior managers will "take care of" any troubled and ailing "family members." This attitude suppresses the need for each employee to be individually responsible and accountable. In a stewardship culture, the operative word becomes "community," not "family." A community reflects shared responsibility and strives to eliminate personal dependencies. Community members respect one another, and their mutual interdependencies. And a community's very foundation is a strong commitment to a common purpose, instilled in the heart of every community member as they enthusiastically work together to accomplish that purpose. Peter Block offers this stern warning:

"One of the hallmarks of autocratic leaders is the pride they take in providing for the future well-being of those who have been loyal to them. When people become our possessions, we feel responsible for their well-being and their future."

Sustaining Forces

In any culture, certain forces emerge to ensure the continued behavior, which the motivational techniques, both extrinsic and intrinsic, try to encourage. In a traditional command-and-control culture, the sustaining force is FEAR. In a stewardship culture, the sustaining force is TRUST. The strong existence of either tends to perpetuate the current culture. To move from one cultural extreme to the other requires the elimination of the currently operating sustaining force. It is very easy to wipe out trust. The same cannot be said about eliminating fear.

In *Out of the Crisis,* Dr. Deming lists as one of his 14 points, "Drive out fear." Kathleen Ryan and Daniel Oestreich wrote an entire book on this one point, entitled *Driving Fear Out of the Workplace: Creating the High-Trust, High-Performance Organization.* This volume, in particular, describes in excellent detail how these two forces, fear and trust, work against each other—how one tends to grow in the absence of the other. It is our hope here to merely highlight some of the major points.

In his foreword to Ryan and Oestreich's book, Gerald Suarez states:

"Although fear is a universal aspect of everyday life, we only reluctantly acknowledge the inhibiting and destructive aspects of this emotion in the workplace. As W. Edwards Deming noted: 'The fundamental problem in American business is that people are scared to discuss the problems of people.' . . . Fear is indeed a problem of people. It does exist in the workplace and it works its destruction all the more successfully because we refuse to face it. Fear is a distracting force that robs employees and organizations of their potential. It can be to an organization what high blood pressure is to the human body—a silent killer! It can go unnoticed, but its effects are devastating nonetheless."

To better understand how subtle a force fear can be, let's look at some common examples of how fear manifests itself in institutions.

The fear of making mistakes and being punished for them—this fear leads to an almost paralyzing need on the part of employees to have foreknowledge, in excruciating detail, of what constitutes a mistake and what the predetermined punishment will be for committing that mistake. This causes management to develop volumes of policies, rules, regulations, and consequences—to, in theory, cover every possible mistake or provide an answer for every possible decision. These become well-defined lines and boxes, which do more to restrict employee performance than to encourage it. "Out-of-the-box," creative thought and the exercise of common sense or personal judgment are foreign concepts, as people may exercise the "wrong" judgment if left to their own decision-making. And management becomes more absorbed in managing rules than leading people. The cycle comes full circle when employees feel that management's obsessive focus on enforcing rules implies that they doesn't trust them. What comes first, the distrust or the policies? It really doesn't matter, as it simply becomes a vicious cycle, which grows

more distrust and leads to more rules and penalties. Listen to what a few other experts have to say on this subject:

Donella Meadows (as quoted in *The Dance of Change*)—"Power over rules is real power...". If you want to understand the deepest malfunctions of systems, pay attention to the rules and who has power over them."

Robert Bruce Shaw (author of *Trust in the Balance*)—"People who cannot trust each other will end up cooperating only under a system of formal rules and regulations, which may have to be negotiated and enforced, sometimes by coercive means. . . . Many organizations . . . design systems that place excessive controls on the 99 percent of the people who can actually be trusted. These controls institutionalize distrust, and the organization, its members, and ultimately its customers suffer as a result."

Peter Scholtes (author of *The Team Handbook* and *The Leader's Handbook*)—"If you distrust your people you will devise programs, policies, and interventions based on that premise. The programs, policies, and interventions become self-fulfilling prophesies: Treat people as untrustworthy and they will act in a way that you may well interpret as untrustworthy."

William McKnight (former head of 3M, as quoted by Robert Shaw)—" 'management that is destructively critical when mistakes are made kills initiative,' and this initiative is essential for growth. In the long run, if people are essentially right, their mistakes are not as serious as the mistakes management will make 'if it is dictatorial and undertakes to tell those under its authority exactly how they must do their job.'"

Midlevel manager of a West Coast service firm (as quoted by Ryan and Oestreich)—"Where there is a lot of fear of screwing up, people don't change behaviors or work systems. Creativity is inhibited. People work one day at a time, rather than looking to the future. High-fear environments just create 'knee-jerking.' You spend all your time putting out fires."

Perhaps the strongest words on this subject come from Phillip Howard (*The Death of Common Sense: How Law Is Suffocating America*). He is referring to the federal government but his meaning holds true for laws, rule, or regulations at any institutional level:

"The fixation on corruption is as powerful as the aversion to human judgment. Every official act, the procedures presume, is an irresistible opportunity for crime. Only perpetual ritual can suppress the original sin of corruption that all bureaucrats acquire when they take their jobs . . . Staffing procedural fortresses to guard against potential evils is more important than getting anything done."

Fear of repercussions—this may be a notch below the fear of punishment, but it can be just as debilitating. In a sense, repercussions are the white-collar equivalent of blue-collar punishments. Often people are afraid to speak their mind or offer opinions or ideas because they might not be the views or opinions of the boss. They fear recrimination or retribution. This is most true when the main issue people want to discuss is their displeasure with management. Ryan and Oestreich contend that:

"Reluctance to speak up . . . creates negativity, anger, and frustration. When these emotions remain hidden—to be discussed only with trusted colleagues in the relative safety of a hallway or

cafeteria, or after work—fear begins to take its toll. It depletes pride and undermines trust, productivity, and innovation."

Now listen to some hypothetical comments from employees that are clear indicators that fear of repercussions might exist in your institution (taken from *Driving Fear Out of the Workplace*):

> "There's a saying around here about retaliation by upper management: 'They may not get you right away, but they will get back to you.'"

> "Our former supervisor—now our manager—doesn't like someone to show him up. He blows up at you; When it's his fault, he won't admit it. When he's around me, I'm nervous. I don't know what will happen if my current supervisor and I can't figure something out and we need to go to him."

Indicators of this form of fear are not reserved for the rank and file employee, as these additional statements from managers attest (from the same source):

> "All this emphasis on feedback from supervisors is just an opportunity to 'get your supervisor.' All it does is nurture the bad apples who want to get you back."

> "When are these people going to grow up and stop whining?"

This fear develops what Peter Senge refers to as "a facade of harmony"—a "don't rock the boat" mentality that stifles innovation and original thought.

Fear caused by inconsistent leadership—this fear manifests itself as anger over policies, direction, or decisions that are perceived as "unfair." It creates the perception that leaders have "favorites" who receive preferential treatment. It can take the form of double standards, unkept promises, or benefits that are given one day and taken away the next. It generally appears when leaders have no central core of guiding principles upon which they rely for making decisions. Decisions are thus influenced by external forces present at the time, but may have no consistent link to a changeless set of values. In a traditional culture, employees rely on the leaders completely for guidance, direction, and decisions. Employees will be far less inclined to assume *any* decision-making responsibility, if the decisions they see handed down from above are inconsistent and unpredictable. The chance that they will make a "wrong" decision is greater in this situation, with the resulting punishment or repercussions lying in wait.

Fear of government intervention—the classic fear that auditors or other regulators will report us to "the authorities." In the most extreme cases, the outside regulators have become the customers. The institution's primary objectives become distorted in our focused efforts on "staying out of trouble." This is not to imply that laws should be ignored or negligently broken, but an over-emphasis on compliance can cause the institution to lose track of its primary mission and prevent innovative thinking. It also becomes a crutch for responding to the question "Why do we have to do this? It doesn't make sense." The typical employee immersed in a seemingly illogical process grows frustrated, sometimes to the point of circumventing "standard operating procedures" in the name of common sense. This usually results in punitive action from managers who are fearful of repercussions from the regulators. There may come a time when any institution needs to make a stand against paralyzing over-regulation. As Philip Howard asserts:

> Law, trying to make sure that nothing ever goes wrong, doesn't respect the idiosyncrasy of human accomplishment. It set forth the approved methods in

> black and white, and that's that. . . . Supposedly the goal is to make sure that money isn't squandered, but the process itself squanders the money. . . . Process has become the invincible weapon of the status quo.

Fear driven by lack of knowledge, information, communication, or understanding—the number one fertilizer for all rumor mills. It is human nature to fear the dark, and similarly, employees fear being left in the dark about what decisions are being made that might impact them. When two-way communication channels are not free flowing, employees start making assumptions about what management is thinking and contemplating—and usually they assume the worst. The most prominent communication network becomes the rumor mill, which spreads information having little, if any, basis in fact. Here is what Ryan and Oestreich have to say:

> Closed-door, behind-the-scenes decision making causes anxiety for several reasons. First, it is regarded as a put-down. Not being included sends the messages: 'You don't know enough' or 'Your judgment isn't valued.' Second, not knowing the rationale for decisions makes them especially difficult to implement, thus raising performance fears. Third, if people were not involved in or informed of decisions, their work life becomes unpredictable and open to a range of possibilities beyond their influence. They don't know what to expect. These reasons leave people feeling tentative and on edge.

Jeanie Duck (as published in the *Harvard Business Review on Change*) describes what can happen when the institution assigns a special task force:

> When the task force chooses not to inform the rest of the organization about its work, it is saying, 'We're busy figuring out your future—we'll tell you what it is when we're ready.' Of course, people abhor information vacuums; when there is no ongoing conversation as part of the change process, gossip fills the vacuum. Usually the rumors are much worse and more negative than anything that is actually going on.

Fear driven by the lack of a vision—fear results when there is no hope of a brighter tomorrow. Uncertainty over the future is one of the most unsettling concerns to any member of any institution. While the most basic fear involves job security, employees may opt to leave an organization, even if they feel their job is secure, simply because they lack confidence that the organization knows where it's going. Or a pronounced vision/mission statement may have no meaning for the general employee population, if they were not involved in its development and share no ownership of it. Stephen Covey contends:

> Many organizations have a mission statement, but typically people aren't committed to it because they aren't involved in developing it; consequently it's not part of the culture. Culture, by definition, assumes shared vision and values, as represented by a mission statement put together and understood and implemented by all levels of the organization.

Turning visions into realities requires a step of faith on the part of all constituents, which will never happen as long as fear is holding back the courage required to take that step.

Fear of being vulnerable—found primarily throughout the ranks of management. Command-and-control leadership styles remain popular, because the hierarchical structure maintains control

in the hands of the leaders—those at the tops of the pyramids. Once this power and control starts to spread out and become more balanced, managers begin to experience a sense of vulnerability. They become dependent on someone else for what they perceive as their own success, and this can be very scary. *Trusting* someone else carries with it an implicit acceptance of risk and vulnerability. Robert Shaw explains:

> Trust becomes an issue when others have significant influence over something that is important to us....each of us wonders if the risk associated with our trust is worth the potential benefit we will derive from it....we cannot be guaranteed that our trust is warranted any more than we can predict the future....The potential harm of depending on an untrustworthy colleague can quickly outweigh the benefits of collaboration....As we give trust and thus become vulnerable, we are particularly attuned to acts that reflect on the trustworthiness of another....[Trust] fades and turns into distrust when those on whom we rely fail to meet our expectations.

Once again we can see the constant tug-of-war between fear and trust.

Fear of change—anything different from the status quo carries with it an unknown element that generates anxiety and fear. The "tried and true" provide a shelter of comfort and safety. According to Ed Oakley and Doug Krug:

> When [people's] focus is inward and specifically on what is wrong with themselves. They are likely to feel threatened by change. They do not want to upset the status quo. They know how to do it the way they have always done it. They know the results they will get by doing it that way, even if those results are not really very impressive. It feels safe doing it the same old way. It does not feel safe doing it a new way. Though they [may not] be happy, they are reasonably 'comfortable' in the certainty of the 'box' they are in.

This reluctance or fear to change can be deeply rooted in the culture. Indicators of a resistance-to-change mindset can be found in statements like: "That's impossible." "We don't do things that way around here." "We tried something like that before and it didn't work." "It'll never work." "We've always done it this way." "Too risky." "The boss will never buy it." "Are you kidding?"

The problem is that change is inevitable. Even if we try to maintain the status quo, outside forces are constantly bringing about change. While certain traditions may indeed be worth preserving, a change-resistant culture is not healthy. In such a culture, people tend to react in a state of panic and anxiety to the outside forces of change. Change is feared as the enemy of all that is sacred and safe about an institution.

There are many other fear generators, but the main idea here is that fear breeds cycles of mistrust. That mistrust reinforces management's assumptions that people are generally untrustworthy, thereby justifying command-and-control leadership.

Trust, like fear, can be self-perpetuating, but can only flourish when certain cultural conditions exist. Those conditions are ones which combat and eliminate the fears we have just discussed, and they generally exist in a culture which embraces the ideals of stewardship. Yet trust is considerably harder to generate than fear, harder to hold onto, and, in many ways, harder to define.

Trust is the naturally occurring bond that forms between two trustworthy people engaged in a common cause. This implies that individual trustworthiness is a prerequisite for trust; trust-based cultures must start with trustworthy people. Stephen Covey contends that trustworthiness requires both personal integrity and competence. Integrity implies the ability to trust ourselves; the self-discipline to keep promises to ourselves; the strength of character to believe in certain principles and practice them consistently in all aspects of our lives. Competence implies an ability to perform a task at a prescribed level of excellence. One of the reasons that trust is so difficult to generate is that it must start with mature, capable people with relatively high levels of personal identity and faith in themselves. You cannot trust someone else at a higher level than you trust yourself. Trust, as a force of great potential power, must find its beginnings within each individual employee, and then it can grow, slowly over time, one person and one relationship at a time.

But the most critical form of trust in the effective operation of any institution is that which forms between leader and follower; between supervisor and employee. This level of trust requires more than just the interaction of two trustworthy people. They also need to be united and committed to a common cause.

Warren Bennis and Burt Nanus (authors of *Leaders: The Strategies for Taking Charge*) contend:

> Trust is the emotional glue that binds followers and leaders together. The accumulation of trust is a measure of the legitimacy of leadership. It cannot be mandated or purchased; it must be earned. Trust is the basic ingredient of all organizations, the lubrication that maintains the organization, and . . . it is as mysterious and elusive a concept as leadership—and as important. . . . trust between leaders and followers cannot exist without two conditions: The leader's vision for the organization must be clear . . . [and] the leader's positions must be clear.

Bennis also states (from *On Becoming A Leader*):

> Followers need from their leaders three basic qualities: they want direction; they want trust; they want hope. That's what leaders must provide, whether we're talking about GM, a nation-state, or a non-profit organization. . . . With respect to the spastic changes taking place in the world today, the trust factor will reign as the most pivotal factor of a leader's success . . .

According to Robert Bruce Shaw (from *Trust in the Balance*):

> Trust is the belief that those on whom we depend will meet our expectations of them." He describes three imperatives to building trust:
>
> 1. fulfillment of the events promised to others
> 2. integrity in following a known set of values, beliefs, and practices; consistency and coherence in one's statements and actions.
> 3. Concern for the well-being of others; understanding the impact of one's actions on others; promoting the well-being and success of people at all levels of the organization.

So how does leadership go about building this trust? By first understanding that trust, similar to fear, is the naturally occurring result of the institution's culture, not an objective or goal in and of itself. As Shaw points out:

> Trust is not something one changes with pronouncements or good intentions. Seeking to improve trust directly, in fact, can result in higher levels of suspicion if the process is not managed effectively.

Promoting an organization that functions at a high trust level requires change in that organization's culture. And that change must touch all the interrelated elements of culture we have discussed—style of leadership, assumptions about people, motivating techniques, and relationships. To illustrate, Peter Scholtes (*The Leader's Handbook*) points out an interesting observation of the Falk Corporation in their analysis of what distinguishes a trustworthy employee from an untrustworthy employee. Their findings produced two lists of characteristics, remarkably similar to McGregor's Theory X and Theory Y descriptions:

The untrustworthy employee:	The trustworthy employee:
• Given an inch, takes a mile	• Is a responsible adult
• Does just what's required	• Wants to contribute; do good work
• Feels that it's just another job	• Cares about the company— wants it to succeed
• Doesn't really give a damn	
• Here today—tomorrow?	• Comes to work every day

We can now start to see how interconnected these various elements of institutional culture truly are. The assumptions leaders harbor about their employees have a direct link to the sustaining forces for our two extreme culture models, fear and trust.

Perhaps the best way to wrap up this section is with the words of FDR: "The only thing we have to fear is fear itself." For as long as fear exists in an organization, it prevents the growth of trust and inhibits any shift to a more effective culture.

General Characteristics

We have reviewed the five component elements of institutional culture and how they individually manifest themselves in the traditional and stewardship culture models. At this point we need to step back, consider the interaction of these elements working together, and reflect on some overarching characteristics of each cultural approach.

Both culture settings derive their tone and mood from their respective leadership—not so much in what the leadership says, but what it does. Actions speak louder than words.

In a traditional command-and-control culture, action is often inconsistent from that which is proclaimed. Policies don't compliment visions. Management tends to focus on problems, and believes it is their job to solve all problems. They take control; make decisions; give direction. Most decisions result in winners and losers and can lead to favoritism (perceived or otherwise). Employees feel like non-consulted, dependent victims and become frustrated and angry. They are in a rut—under-appreciated and going nowhere. They comply, but they don't commit. "Finger pointing" and casting blame takes the place of accepting responsibility. Over time, power is leveraged both by management and workers, often through the intervention of labor unions. The

boundaries of acceptable behavior are defined in sharper and sharper detail, through the proliferation of policy, rules, and regulations. Human Resources departments become the guardians of these documents and regulate compliance. The rumor mill is alive and well. Employee turnover rates are high. Safety is defined as sticking with the "tried and true," doing things the way they've always been done. The organization does get results, but they tend to be reactive and short-term. The organization is generally stagnant, surviving a day at a time.

On the other hand, in a stewardship setting, a sense of shared ownership prevails. Individual and organizational integrity is the key. A clear vision is understood and shared by all. Guiding principles have been adopted by all stakeholders, which govern how the vision will be reached. All action is in alignment with these principles. Employees are committed to seeing the vision become a reality. Change is embraced as an opportunity for growth and improvement. All employees become active participants in the change and improvement process—suggesting ideas, gathering data, analyzing alternatives, and making recommendations. All employees are respected for the importance of their individual contributions and encouraged to develop professionally and reach toward their potential. They are assumed to be honest and trustworthy, unless they betray that trust. They are empowered to make decisions and exercise judgment and common sense, on a case-by-case basis, as the situation warrants. Authority, responsibility, and accountability are accepted and shared, and power is carefully balanced. An attitude of "fairness" presides over all decisions that affect people. Cooperation and teamwork is the norm. The organization is flexible and responsive to short-term requirements, but stays focused on a path of long-term success. The organization is vibrant and alive—constantly learning, growing, and improving. Borrowing a slogan from the Navy, "It's not just a job, it's an adventure."

Making the Choice

It is now time to return to that question we asked at the very beginning—which culture should an institution choose to embrace? By now, such a question must seem like an insult to any sane person's intelligence. Choose between Hitler and Jesus? Fear and trust? Favoritism or fairness? Angry employees or exuberant employees? Carrots/sticks or joy of work? Stagnant or vibrant organizations?

What is there to decide? The choice appears crystal clear. But wait a minute. If the choice is so clear, then why haven't institutions around the globe already jumped onto the stewardship bandwagon? Why do examples of traditional cultures still abound? Is there some fatal flaw in our analysis?

There may be many reasons why so few cultures have made the shift toward stewardship, but the three primary ones are:

- It's hard.
- It's high risk for management.
- It's perceived as idealistic.

These facts must be realistically confronted before starting any effort to bring about a culture shift.

Why is it so hard? First, developing mature, independent (not to mention interdependent) people is hard. Many workers have been conditioned over time to succumb to a state of dependency. Other's opinions and assumptions of them have become self-fulfilled prophesies over time. They have low self-esteem. They lack the courage or the confidence to take charge of their own lives, much less accept any decision-making responsibility on the job. They go through life muttering "if only . . .", without any sense of direction for their lives. They don't believe that there are any options or choices available to them. They feel continually frustrated by things they perceive to be beyond their control. They are in a constant reactionary mode. Their job is strictly a means of paying for life's basic needs—of surviving. They feel like victims of their genes, their upbringing, or their environmental surroundings. As Peter Block contends:

> Victims believe that others, often [their supervisors or managers], hold the answer to their helplessness. . . . Victims are strong believers in patriarchy, they are just angry that they are not the patriarch. . . . Giving power to victims who do not want to choose responsibility is one of the reasons that revolutions often result in leaders who are more dictatorial than the people they replaced. . . . The people despair over their leaders because they have looked to them to give what the people have to take responsibility for themselves. Until people take the responsibility to lead themselves out of the darkness, rather than expecting the [institution] to do it, they will never become viable.

It's not that employees are unintelligent, incompetent, or lack potential. But self-worth, once lost, can only be recovered one person at a time. Many are too scared to even start the process. They equate comfort with a well-defined "box" within which they can function without fear of repercussion or punishment, which brings us to the second reason why bringing about a culture shift is so hard.

Driving out fear is hard. In fact, the sustaining force of fear is so prevalent and has become so accepted in traditional cultures, that there is actually a fear of driving out fear. Yet, as we've pointed out, the presence of fear prevents the growth of trust, and trust is a prerequisite for stewardship. Review again the several "fears" we discussed earlier. Think in real terms about what it would take to truly eliminate the source of these fears. Many are subtle and some are even unconscious. And yet their very existence perpetuates cycles of mistrust. In trying to answer the question of why fear persists, Ryan and Oestreich return to the basic underlying assumptions that exist ingrained in the culture—"supervisors and employees *cannot* trust one another. As a result:

1. Each side assumes the other operates from a philosophy of self-interest.
2. Each side is expected to try to achieve its self-interest at the expense of the other party."

Like the fears they generate, these underlying assumptions can be insidiously subtle—difficult to identify, much less eliminate. Another force that thrives on fear and will actually try to hide and preserve it is cynicism. Ryan and Oestreich assert that:

> Cynicism can obscure the depths of fear that are present in a workplace. After all, it is safer to express cynicism than to express fear and other aspects of vulnerability. As a form of defense and denial, cynicism has a broad constituency. It is a passive rebellion against the way things are that keeps people from investing their time and talents in ways that would lead to positive change. This cynical viewpoint ensures a tremendous loss of energy in people and organiza-

> tions and becomes a self-fulfilling prophesy about an organization's capacity to change.

Next, stewardship delegation is hard. It requires management to give up some control and employees to assume self-management, self-supervision, and self-accountability. It is a true transfer of ownership of specific work processes. It requires employees to develop higher levels of initiative. No supervisor will be constantly looking over their shoulder, holding them accountable. At the same time, supervisors that can't resist the temptation to peer over the employee's shoulder run the risk of violating the stewardship trust. Supervisors have difficulty recognizing the tremendous power of releasing the potential in people, when all they can see is a job not being done as well as or exactly the way they would do it themselves. All of this is hard because few people have experience working in effective stewardship settings. It feels foreign and uncomfortable. Without faith and patience, it can quickly revert to the more familiar command-and-control approach.

Finally, building trust is hard, as Max De Pree describes:

> Earning trust is not easy, nor is it cheap, nor does it happen quickly. Earning trust is hard and demanding work [and] it's much more difficult to rebuild trust than to build it in the first place. Once we have built it we should treasure and protect it. Trust can be won only slowly; it can be lost in the twinkling of an eye.

Why do mangers view a shift toward stewardship as high risk? Because it requires a step of faith. Where is the proof, the assurance that it will work? The current system gets results; why change? As the saying goes, "If it ain't broke, don't fix it." Why mess with a known quantity, even if current results are marginal? Trying to alter the culture could actually make things worse. And who will get blamed? Senior management, of course! If management is operating out of a traditional command-and-control culture, there are no incentives for trying something new—for taking a risk. Managers may even site examples of failed attempts, and there are many to point to. Senge admits that:

> Failed corporate attempts to break down centralized control are legion. "Matrix" organizations, intended to free people from the arbitrary whims of a single boss, often trap them between the inconsistent demands of two or more bosses. Decentralization often gives people decision-making authority beyond their business judgment.

In truth, there is a greater degree of trust required to initiate something as radical as a culture shift, than that required to merely engage in daily operations—and a corresponding higher degree of risk. Peter Senge calls this condition a "trust gap:"

> A trust gap only develops when there is an increased level of trust required—when a change initiative 'ups the stakes' and leads people to become genuinely concerned about how much they can trust management. . . . In a great many work settings, suspicion is high and trust is low and people know it. The trust required to get work done is low, commensurate with the trust that exists. However, when people undertake initiatives that will require personal as well as systemic change, trust required increases and the previous taken-for-granted low trust suddenly becomes an issue.

Managers also view any culture shift as a risky proposition, because they don't know *how* to make it happen. Peter Block views the question "How?" as a "defense against action." "It is the engineer in us that looks outside ourselves and wants to know, ahead of time, what steps to take. This is our desire for a safe and predictable future." He contends that in the four books, *Thriving on Chaos* by Tom Peters, *Seven Habits of Highly Effective People* by Stephen Covey, *The Empowered Manager* by Peter Block, and *The Fifth Discipline* by Peter Senge, are over 925 specific suggestions on *how* to move the workplace in high-performing and customer-centered directions. There is plenty of advice available to answer the question "How?" Still the risk factor remains a major impediment to change.

And, of course there is the issue of vulnerability, which we have already touched upon. Trusting in someone else makes us vulnerable. What if that person betrays our trust? What if he doesn't perform up to our expectations, or those of our boss? Where does that leave us? If we give up control of all or part of the end result, and something goes wrong, won't we still suffer the consequences? If we really open up and speak our minds, how can we be sure that we will not experience the kind of repercussions that were so prevalent in the "old" culture? Robert Shaw points out that "one of the paradoxes about trust is that trust cannot grow unless we take risks that may result in distrust." Being vulnerable is a price we pay for building trust and a huge hurdle to overcome along the path to a stewardship-based culture.

In summary, Max De Pree gets to the heart of risk:

> In very real change, at least, risk seems to be the essential element. . . . Whenever or however we serve, we can't avoid the central conundrum of risk: to risk nothing is perhaps the greatest risk of all.

Why is an idealistic perception of the stewardship culture model an impediment? Perhaps because, as a society, we have come to view an ideal state or perfection as so impossible to attain, that it becomes disheartening to shoot for it and never reach it. So, why bother?

We go to great pains to describe in excruciating detail what we consider to be the limits of acceptability, but spend little effort defining our most *desirable* preferences. Kosaku Yoshida published a paper in the Fall 1989 Columbia Journal of World Business, entitled "Deming Management Philosophy: Does It Work in the US as Well as in Japan?" He describes how *our* "society identifies clear-cut boundaries between what is and is not acceptable in certain circumstances." The Japanese, on the other hand, focus more on the concept of desirability. What is the preferred state, the most highly desirable outcome of any set of circumstances? He characterizes these two philosophical approaches by drawing two circles. For the U.S. circle, the perimeter becomes the line of acceptable outcomes. Anything inside the circle is acceptable; anything outside is unacceptable. The Japanese circle takes on the appearance of a target. The only thing accurately defined is the center of the target—the most desirable outcome. Emanating from the center are concentric rings, which serve to help one judge the amount of improvement that is still possible. In Yoshida's words:

> The difference between the US and Japan in terms of corporate agreements and management techniques sometimes reduces to a matter of whether one begins the process with desirability or with acceptability. The Japanese . . . tend to fill in the center first, establishing what is desirable. Americans . . . tend to first specify the perimeter or boundary for what is acceptable. It is relatively easy to

> define a center for a wide area, but it is considerably more difficult to define the area's exact perimeter. Furthermore, once rigid boundaries are fixed, people naturally tend to gravitate toward meeting the lower requirements of acceptability rather than striving to achieve the more exacting ones of desirability.

Does stewardship describe an ideal state? Perhaps it seems that way, especially when compared to more traditional cultures, but does that mean we should not even try to hit the bulls-eye? We need to beware the trap of rationalizing that what we have is good enough and that anything better is unattainable.

James Champy captures the challenge of undertaking a culture shift:

> There's a kind of law of [institutional] cultures, that bad values tend to drive out good ones, first the good social values, then the good work values. . . . good cultures require hard work to establish and maintain, while bad cultures do not. Flourishing gardens need careful planting, fertilizing, and weeding—in a word, *cultivating*. Weedy gardens are "low-maintenance;" they "go of themselves..."

Kotter and Heskett confirm that "major cultural change does not happen easily or quickly."

Peter Block adds:

> Stewardship is an exercise of faith, responsibility, and commitment. As soon as we chose stewardship, we need a way of confronting doubt, helplessness, and indifference. When people do not buy partnership, empowerment, and service, it is not because it does not make sense or they think it will be bad for the [institution]. It is more that they don't think it possible or practical, or they don't trust us to make it work. Unattended, cynicism will carry the moment, and charisma, reason, and a compelling vision are not enough to get the job done.

It may be hard. It may be risky and idealistic, but there are examples where stewardship has successfully evolved. For the sake of argument, let's hope that "charisma, reason, and a compelling vision" *are* sufficient to take the first step.

Making the Shift

Once these truths are understood and accepted as obstacles and restraining forces that must be overcome, a true culture shift can begin. But it's important to understand, as Edgar Schein stresses:

> you cannot create a new culture. . . . [you can only] set the stage for the culture to evolve. . . . Culture is complex, powerful, deep, and stable. It can be evolved—if you think clearly about it and understand its dynamics.

And we can take heart in the encouragement of Max De Pree:

> Of what is hope composed? Certainly part of the answer is the ability to make choices. . . Our choices guide our journey. Choices are part of the stewardship of life . . .

Perhaps this is the most valuable message to come from our review of the culture continuum. Culture can take on different characteristics, and we can make a conscious choice as to which

characteristics we want to embrace. We have the ability to exercise some degree of control over our destiny and the culture we want to cultivate in the future. Some choices require an investment of time and effort and an acceptance of certain risk, but the potential return is extraordinary. So where do we start?

There is no sure-fire recipe that will work for every institution. In fact, no two cultures are exactly alike, and the final characteristics need to uniquely "fit" the organization. There are, however, certain steps that are essential to the culture shift process:

1. Generate commitment of a core leadership group
2. Envision desired culture characteristics
3. Review/adjust ingrained assumptions about people and bring actions into alignment
4. Focus on individual transformation
5. Attack bastions of fear in the name of building trust
6. Sustain momentum

Not coincidentally, these steps follow the same general sequence of our culture components. While the sequence is initially important, once the shift begins, action will be required simultaneously at all levels.

It's not surprising that leadership, which has the most influence over sustaining the current culture, is the place where any culture change must start—not just the single "CEO" at the very top, but rather a core group of committed leaders, which John Kotter (*Leading Change*) refers to as a "guiding coalition." In an earlier book where they published the studies of ten case studies of successful cultural change, Kotter and James Heskett repeatedly reported their findings on the importance of leadership at the onset:

> The single most visible factor that distinguishes major cultural changes that succeed from those that fail is competent leadership at the top. . . . Each leader succeeded in persuading important groups and individuals ... to commit themselves to that new direction and then energized the personnel sufficiently to make it happen, despite all the obstacles. . . . The establishment of a strong leadership process, not to replace, but to supplement a management process, is an absolutely essential part of all of these stories of major cultural change. Unlike even the very best management process, leadership has as its primary function the production of change. Without leadership, purposeful change of any magnitude is almost impossible.

Kotter also stresses the need for having the right membership mix on the "guiding coalition," recommending that position power, expertise, credibility, and leadership be the primary prerequisites for membership. However, the three overriding requirements for the success of this team are a sense of urgency, a shared commitment, and trust. We have already discussed how trust depends on the trustworthiness—a combination of integrity, competence, and caring—of all the invited players. There may not be time to build these interdependent qualities. The preferred condition is for them to be pre-resident in the individual members. Kotter agrees that:

> Teamwork on a guiding change coalition can be created in many different ways. But regardless of the process used, one component is necessary: trust. When

> trust is present, you will usually be able to create teamwork. When it is missing, you won't.

A sense of urgency and a shared commitment grow through a recognition and education process. Studying the culture continuum in light of one's own culture is a logical first step. Each member needs to fully appreciate the interrelated forces at work, the inconsistencies that may exist, and the resulting fear or trust, as the case may be. They need to become aware of the power of institutional culture to influence all aspects of personal and organizational performance. They need to read and contemplate what others believe about the choice to shift the culture of the institution. The references listed at the end of this paper are an excellent place to start. From this contemplative process needs to come unanimous agreement from the group that the time for action is now. They may not know *what* that action should be; they may not know *how* to accomplish that action once it's agreed upon; but there can be no disagreement that *when* is now! And, early on, they must transmit this sense of urgency to all managers and employees. John Kotter believes that an all out assault against complacency is the only way to get change started:

> Without a sense of urgency, people won't give that extra effort that is often essential. They won't make needed sacrifices. Instead they cling to the status quo and resist [change] initiatives . . . Establishing a sense of urgency is crucial to gaining needed cooperation. With complacency high, transformations usually go nowhere because few people are even interested in working on the change problem. . . .*Never underestimate the magnitude of the forces that reinforce complacency and that help maintain the status quo.*

As we have repeatedly stated, initiating and sustaining a culture shift is hard work. That's one of the primary reasons why many attempts fail. It requires a strong, almost infectious commitment on the part of all core leaders—a commitment of time, effort, patience, and fortitude.

The next step is for this guiding coalition to envision the culture they would like to create. Each member needs to tap his or her visionary abilities. Everyone needs to think in terms of *desirability*, not *acceptability*. While we have described a stewardship culture as a contrast to traditional command-and-control, each institution needs to determine that culture which uniquely suits it, and will offer the greatest promise of future success. This vision process starts with asking the right questions. Edgar Schein recommends that the most basic question is "Why do you need to change your culture at all?" The team should be able to point to specific weaknesses that are holding back the institution or creating problems. Doing it because it's the "90s thing to do" is insufficient to maintain the momentum that will be needed. This vision can and must create an exhilarating "force in peoples hearts," as Peter Senge puts it. "A force of impressive power."

Some of the other questions that must be asked, according to Schein, include:

- What results and new ways of working do you want to create?
- What characteristics of the culture (especially cultural assumptions) are most likely to hinder the change?
- Which characteristics are most likely to help?
- Finally, in order to develop the results you want, what attitudes would have to shift?

The answers to these questions will provide a sense of those values and guiding principles, which can become the bedrock for the institution in a sea of change. As James Champy points out:

> With everything changing around us, we need something unchanging—north stars or touch stones, commandments, slogans, or aphorisms—to hang on to, to find our bearings with, and to steady our nerves. Values are our moral navigational devices.

While such values need to be specifically developed, nurtured, and embraced by each organization, Champy describes what he has found as typical values in highly successful organizations—a general willingness at all levels to: take initiatives and risks, make decisions, work cooperatively, share information, trust and be trustworthy, respect others, and accept responsibility. It probably comes as no surprise that these values correlate very closely to the general characteristics of a stewardship culture.

Core values and guiding principles are even more important for an institution with a long history of tradition. Tradition can be a force that both reinforces that which is good and noble about the institution, while at the same time holding back change. Certain traditions, rituals, and customs make an institution's culture strong. They may provide it with a unique sense of identity, but they must not make it inflexible. Often the line is a very fine one. Phrases like "We've always done it this way," "It's against policy to do it that way," "We don't do things that way around here," or "When you've been around here a little longer, you'll understand" are symptoms of inflexibility, not tradition. Our "traditional" command-and-control leadership approach has survived the test of time, not so much because of it's virtue, but because "it's all we know."

Creating a vision of a more desirable culture should be thought of in terms of creating a legacy. Max De Pree believes that thinking in terms of leaving a legacy forces us to answer the question: "What will I [members of the institution] give you [future generations] to remember me by?" He goes on to state:

> *A true legacy establishes a direction.* It always suggests a vision, something very different from a strategy. People write down a strategy and follow it. We *see* a vision and *pursue* it. A clear sense of direction is the necessary foundation for a life of service.

Once this vision, this legacy, this desired future state takes shape in the minds of the guiding coalition, it needs to be shared with all members of the institution in a way that generates their support. While this transition process is initiated by leadership, it must not become a secretive process, carried out behind closed doors at some off-site retreat. If a culture shift is truly the right course of action, the very thought of what the future might bring should raise the hopes of all stakeholders. The only way for that to happen is through continuous open communication. As James Champy cautions:

> . . . everyone must be "in the know." Unless they are, you can forget about getting a total mobilization; in fact, everyone *not* in-the-know will see nothing in your efforts but a conspiracy. No one is going to go through the ordeal of a total mobilization for change without knowing why, or what for. The successful manager today isn't the one who is entrusted with secrets, but the manager who

> wins trust by sharing what he or she knows. . . . But to gain that trust, we must be candid, forthright, open—with everybody."

The third step in the culture shift process requires the review of all ingrained assumptions about people. Do our existing policies, rules, and informal practices reflect the culture we are trying to create? Or are there inconsistencies? Most guiding coalitions, if they are truly honest, will discover many inconsistencies, which send mixed signals throughout the rest of the organization. It becomes extremely difficult to get a critical mass of employees to embrace the new cultural vision when they sense management is not trying to practice what they are preaching. Robert Shaw describes the typical reaction:

> A common employee point of view might be voiced as follows: "I get upset because we want communications and instead we get propaganda." That is not communications. Communications is asking people what their problems are and what they can do to help. . . From the employee's perspective, neither their needs nor expectations are met when leadership (either of the organization as a whole or of the functional groups) simply announces a new policy or sets directions from afar.

The only way to effectively change the assumptions the institution holds about its people is for actions to change. The institution can claim that they hold certain assumptions or values dear, but actions speak louder than words. The employees know the truth because they are on the receiving end of most action; and they resent and will rebel against any obvious hypocrisy.

The most practical place to start the process of realigning practice with newly espoused beliefs is the human resources department. Generally, this office has become the regulating agency for the organization—the holder and enforcer of all rules, regulations, and policies that relate to people. In some cases, the HR department is the place where such controls are conceived, written, and published—all in the name of more consistent management, legal compliance, and better overall performance. An over-emphasis on ensuring compliance can cause HR departments to lose track of its principle responsibility—serving the needs of management and employees in a way that is consistent with the organization's mission, vision, and values. Human Resources is generally the first place to look when analyzing the subtle (and not so subtle) ways that basic assumptions about people are demonstrated in actual practice. It is the place where the prevailing sustaining force, fear or trust, takes strongest root. Ryan and Oestreich emphasize that:

> How HR systems function and how senior managers behave are frequently read as two central clues about the nature of an organization's culture and whether that culture is based on trust or fear. . . . People pick up on the nature of the policies and HR practices within which they are expected to operate. If these practices make negative assumptions about the intentions of employees, they create confusion and trigger the cycle of mistrust.

If employees cannot trust their HR personnel, they will hesitate to go there for advice or assistance, for fear of repercussions. Ryan and Oestreich relate what one study participant said about her organization:

> Human Resources is a totally Theory X organization. . . . If you went there, the word would get back to your boss before you got back to your work station.

Peter Block has some bold words on the subject of Human Resources and the controlling role it has come to play in most traditional cultures:

> Choosing stewardship . . . means fundamentally rethinking our human resource policies and the role of the human resource function. Stated most simply, it is a move from parent to partner in how we hire, fire, pay, appraise, train, promote, transfer, provide benefits, and improve the organization. HR [typically] has the task of creating policies in these areas and assuring their implementation. Muscle, in the form of approval authority, has been given to the function to ensure compliance and consistency. In most organizations, if you want to do training, adjust your pay system, add a new job or a new level, hire someone, redo any people-related process, you go to human resources for their formal or informal approval. The fact that your HR department may be supportive and sensitive to your requirements, and more often than not give you what you ask for, does not change the approval seeking nature of the relationship.

Beneath all the controls that human resources has over decisions that affect people are the assumptions they, and theoretically senior management, hold about those people. In an article published in the *Harvard Business Review*, Dave Ulrich agrees that "today, HR is sanctioned mainly to play policy police and regulatory watchdog." He places the responsibility for transforming HR in the hands of senior leadership and suggests that we must "create an entirely new role and agenda for the field that focuses it not on traditional HR activities, such as staffing and compensation, but on outcomes." He outlines four ways that HR can be of greater value to the organization:

1. HR should become a partner with senior managers in strategy execution necessary for accomplishing the mission and reaching toward the vision.
2. It should become an expert in the way work is organized and executed, focusing on improved efficiency.
3. It should become a "champion for employees," vigorously representing their concerns while working to increase their contributions.
4. HR should become an "agent of continuous transformation, shaping processes and a culture that together improve an organization's capacity for change."

As Ulrich acknowledges, these ideas are a radical departure from the way most human resources departments currently function, and the changes he advocates can go a long way toward shifting institutional culture. Peter Block summarizes:

> Human resource practices do not impact the culture of an institution, they *are* the culture....Whatever the name of your change effort—total quality, self-management, entrepreneurial government, school-based education—nothing will get institutionalized until practices in these arenas are redesigned.

Interestingly, as assumptions about people change and the roles of human resources change, motivational techniques will automatically start to shift. Organizations need to deal fairly (not necessarily equitably) with compensation issues as an employee entitlement, separate and apart from results and performance. Once this happens, more intrinsic forms of incentive will rise to the surface, which will result in higher levels of employee satisfaction, dedication, and initiative. These become the first steps toward a culture based on stewardship.

The fourth step is a concentrated focus on individual transformation. Driving out fear and building trust depends on developing the trustworthiness of each member of the organization. The temptation is to jump in with new approaches, tools, and techniques, focused on increased delegation and empowerment, but many workers are not prepared to accept the responsibilities this brings. Recent reengineering and total quality initiatives in the corporate world have stalled because of this problem, as Sylvia Bushell describes in an article entitled "Is Your Total Quality a Trojan Horse or a Real Gift?"

> All too often the decision to transform the organization's culture into one of total quality begins with implementing the tools of total quality. . . . The tools of total quality often do bring some good initial results. . . . But when the emphasis is on tools alone, it is not long before the effort stalls in its effectiveness. . . . Total quality's tools are simply the vehicles for manifesting the vision of putting people first. The tools require teamwork and trust between people. If there is distrust and lack of teamwork, the underlying root causes of systemic problems will never be addressed. People simply do not put themselves on the line in such an environment.

Or as John Kotter explains:

> Over the past century, millions of nonmanagerial employees have been taught by their companies and their unions not to accept much responsibility. For many of these people, you can't just say, "OK, now you're empowered, go to it." Some simply won't believe you, some will think it's an exploitive trick, and others will worry that they aren't capable.

Once again we face the paradox—to deal with the complexity and pace of tomorrow's problems and to truly encourage a culture that emulates stewardship, individual people must work together in teams. Teamwork requires trust—an interdependent, two-way proposition. But trust cannot grow between and among untrustworthy individuals—those who lack a core of personal integrity, competence, and concern for their fellow employee. The simple truth is—people cannot live or work together effectively, they cannot make wise decisions, they cannot adapt to change unless they can first develop these qualities of trustworthiness. Stephen Covey's first three habits focus on the development of this character trait. As Covey explains:

> The root is character: the foundation of integrity which builds the trustworthiness. Everything else builds on top and is made effective by it. . . . If you are an effective manager of your self, your discipline comes from within; it is a function of your independent will. You are a disciple, a follower, of your own deep values and their source. And you have the will, the integrity, to subordinate your feelings, your impulses, your moods to those values.

Covey believes "a life of integrity is the most fundamental source of personal worth." People who do not think their life has value will have trouble respecting other people. Those with low self-esteem become easily defensive, are quick to blame others, and lack the courage of their convictions. These individuals tend to exhibit a conservative, risk-free attitude toward change, preferring to stick with the comfort and perceived stability of the status quo. But in today's era of constant change, nothing could be more de-stabilizing.

So it is critical to begin with each individual player, helping each to develop a sense of personal integrity, which will lay the foundation for relationships with others based on trust. In his last book, published when he was nearly 93 years of age, Dr. W. Edwards Deming had this to say:

"The first step is transformation of the individual. . . . The individual, transformed, will perceive new meaning to his life, to events, to numbers, to interactions between people. . . . He will have a basis for judgment of his own decisions and for transformation of the organizations that he belongs to. The individual, once transformed, will:

- Set an example
- Be a good listener, but will not compromise [his principles]
- Continually teach other people . . .

The word *metanoia* is more suitable than transformation. Metanoia . . . means penitence, repentance, reorientation of one's way of life, spiritual conversion."

While Deming tends to be thought of primarily as a statistician, concerned with reducing process variation, he understood full well that the greatest variable in any process is human behavior. We all make decisions based upon our best prediction of the outcome, but when human behavior is inconsistent, there is no way to accurately predict. The key to consistent behavior is individual integrity, which produces trustworthiness, which earns trust—trust in the sense that people will act for the right reasons, exercise common sense, and exhibit sound judgment.

Peter Senge takes this thinking one step further. He is also fond of the term *metanoia*, which he defines as a "shift of mind." He likens metanoia to the process of "learning," which also requires a "fundamental shift or movement of mind." Growing as a person, adapting to the times, moving from a dependent to an independent to an interdependent level of maturity, making wise decisions that affect the future—the capacity to do all these things hinges on our capacity to learn. Peter Senge believes:

> Real learning gets to the heart of what it means to be human. Through learning we recreate ourselves. Through learning we become able to do something we were never able to do. Through learning we reperceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life. This, then, is the basic meaning of a "learning organization"—an organization that is continually expanding its capacity to create its future.

The key is that learning must start on an individual level. In many ways the process of learning, or as Senge puts it, "expanding the ability to produce the results we truly want in life," is akin to rising through Maslow's hierarchy of needs. As one moves through the deficiency needs through self-esteem toward self-actualization, individual learning and personal mastery are taking place. The more individuals grow, the better they are able to interact on a professional basis, appreciating the fact that differences between people can be complementary just as easily as conflicting.

It thus becomes a critical responsibility of the guiding coalition team to provide the learning opportunities that will help people develop and grow as individuals, to self-actualize, to reach their maximum potential. This "people first" approach is easier said than done, however. In the words of Stephen Covey (with a little help from Dr. Deming):

> American management has given lip service to tapping the potential of its most important resource—its people. "The greatest waste in America is failure to use the abilities of people," laments Deming. The first fundamental transformation of thinking required of American management is to develop new basic attitudes toward the intrinsic dignity and value of people, of their "intrinsic motivation" to perform to their maximum capabilities.

The fifth step in the culture shift process is to attack bastions of fear. We have already explored some of the common fears in considerable detail. Assuming progress has been made in the previous four steps, and changes in the institution's basic assumptions about people and motivational techniques have begun, many of these fears may already be well on their way out the door. Still, any fears that persist will work to undermine trust. The best suggestion at this point is to work on small, short-term success efforts. Action teams with cross-functional memberships can be chartered to work on specific policies, programs, procedures, and processes that tend to reinforce fear and inhibit trust. Peter Scholtes (*The Leader's Handbook*) offers an excellent example of a policy review initiative at the Falk Corporation. The policy under review was the company's bereavement leave policy. It is the type of policy written because management fears inconsistencies if supervisors are permitted to exercise common sense and sound judgment on a case-by-case basis. Here's how the *old* policy, brimming with distrust, read:

> All employees shall receive time off with pay up to a maximum of three (3) days for working time lost if there is a death in the immediate family.
>
> These days must be within a seven-calendar-day period, the first day of which would be the initial bereavement day paid. However, one of the days must be the day of the funeral. If the funeral falls on a nonscheduled workday (Saturday, Sunday, holiday, during a plant shutdown, or during a period of disability), no loss of pay is involved, therefore bereavement pay will not be made for such days.
>
> Pay will be for eight (8) hours at the employee's day rate plus average premium for the three (3) months prior to the month in which the time off occurred.
>
> A part-time employee's pay will be based on average hours worked in the previous month and will be at the employee's day rate plus average premium.
>
> An employee's immediate family will be considered . . . spouse, child, stepchild, mother, father, sister, brother, stepparents, grandparents, and grandchildren of employee, son-in-law, and daughter-in-law. Mother, father, sister, brother, and grandparents of the spouse.
>
> Payment will be made by the company upon request by the employee to the personnel department.
>
> The personnel department may require verification of death and relationship of the employee.

The *new*, trust-based policy simply read:

> If you require time off due to the death of a friend or family member, make arrangements with your supervisor.

Certainly skeptics would be quick to point out the potential for inconsistency in the application of such an "ambiguous" policy. Obviously, individual transformations need to take place first to ensure that managers and supervisors can implement such a policy in a manner that will be deemed "fair" by all. In the case of the Falk Corporation, the results speak for themselves:

> "The total number of days used for bereavement leave under the new policy was 47 percent of days used under the old policy, less than one-half the previous use of bereavement leave."

This is just one example. Most institutions have shelves full of other policies requiring similar review. There will also be many opportunities through the initial stages of the culture shift process for senior leadership to earn (or destroy) credibility. Remember, building trust requires acts of integrity, acts that allow the senior staff to become more credible in the eyes of the followers. It may take hundreds of such acts to make a meaningful deposit in the employee's "emotional bank account," to borrow a term from Stephen Covey. Yet it only takes one thoughtless act, especially in cultures with very low trust levels, to take the balance back to zero.

Finally, it is extremely important to sustain momentum once the culture starts to move through the various stages of the transition. All too often, the temptation is to declare victory, well before any permanent change has truly occurred. It is also important to remember that we are aiming at the center of the desirability target. There really is no end to the evolution process. In fact, declaring victory only establishes a new, "nearer-to-perfect" status quo to be protected. This is the mind-set that probably led to command-and-control leadership in the first place. At this point, the number one enemy becomes complacency—believing that "we've made it," "we've reached our destination," "this is so much better than it used to be (or better than anyone else), so don't mess with it or we might screw it up again." A certain sense of urgency must be always present—the kind of urgency associated with never procrastinating on one of the most important things we do—enhancing our legacy. Several years ago, Toyota, in advertising the new model of its highly successful Camry, ran large ads that read "We just couldn't leave well enough alone." Every institution needs to adopt this attitude—the journey never really ends; learning never really stops; tomorrow can always offer something better than today.

Accepting the Challenge

There is a tendency for institutions of higher learning to think of themselves as separate and apart from the for-profit business world—that all the books written on business, management, and leadership do not *really* apply to the world of academe. The hallowed halls of our universities and colleges offer a kind of twilight zone, where time moves at a different pace, and the laws of corporate enterprise don't intrude.

This is a dangerous paradigm. The principles of the culture continuum are truly generic and universal. They apply wherever people join together for a common cause. They apply whenever people need to depend upon one another to provide a product or service. They apply every time the future viability of an organization is linked to the quality of the product or service it produces. They apply to small businesses and large corporations, without question. But they just as

certainly apply to all non-profit organizations—to volunteer groups and social committees; to philanthropic associations and government agencies; to churches, libraries, and hospitals; and to schools of all shapes and sizes. In fact, one could make a strong case that the principles of a stewardship culture are more compatible with an institution of higher learning, than with a corporate entity trying to survive a day at a time in a dog-eat-dog world. Colleges and universities exist only because they believe in the potential of the human spirit. Releasing that potential gets to the very heart of stewardship.

Two final thoughts—the first from Max De Pree: "The future can be created, not simply experienced or endured. . . All of us are in the process of becoming . . . and we are sentenced to live with who we become."

And, as Robin Williams challenges all of us in the closing sequence of that scene from Dead Poets Society: "Don't just walk off the ledge like lemmings. Dare to strike out and find new ground!"

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Assessing Capital Equity

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I. The University of North Carolina Equity/Adequacy Study

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The University of North Carolina (UNC) is North Carolina's state-supported public university system, consisting of 16 *constituent institutions* that include two Research I Universities; two Doctoral Universities I and II; eight Masters (Comprehensive) Universities I; three Baccalaureate Universities I an II; and one Specialized Institution—North Carolina School of the Arts. Five of the 16 institutions are Historically Black Universities (HBUs) and one—UNC-Pembroke—was founded as an institution to serve Native Americans—North Carolina's Lumbee Tribe.

Together, the 16 UNC institutions enroll approximately 155,000 students and offer the full range of undergraduate, graduate, professional, and specialized curricula. The 16 campuses together comprise approximately 50 million gross square feet of buildings, with an estimated current replacement value (CRV) of $4 billion.

An elected Board of Governors governs systemwide policy, including capital planning and budgeting, and is staffed by a General Administration central staff. The 16 institutions were reorganized into the current unified system under the Board of Governors, when it was created by the General Assembly in 1972. In addition, each campus also has a Board of Trustees that has jurisdiction over capital planning, land acquisition, construction, and asset management, among other governance duties.

UNC Capital Funding

In North Carolina, the General Fund typically supports academic facilities, while the institutions fund dormitories, student service, athletics, and parking facilities from fees, often by issuance of debt. With a multi-year *UNC Capital Improvement Plan* in place, each year, the General Assembly funds capital projects from unexpended balances in the General Fund. It also authorizes projects for fee-supported or *self-liquidating* projects and for projects supported with gift or grant funds. Occasionally, the State issues general obligation bonds for university facilities. It also provides an annual allocation for repairs and maintenance, via the *Repairs and Renovations Reserve Fund.*

The Legislative Mandate

In 1997, the North Carolina General Assembly passed a *Special Provision* in its budget mandating a study of *equity* and *adequacy* of capital facilities of all 16 universities. At least two separate but related issues generated the need for this study. Initially, the impetus for a study of *capital equity* arose from concerns of constituents who represent the interests of the HBUs. These concerns followed release of a 1996 *Operating Budget Equity Study* that did not indicate that the HBUs had been underfunded for annual operations. Concerns persisted that the five HBUs—which include NC A&T State University (an 1890 land-grant institution); NC Central University; Fayetteville State University; Winston-Salem State University; and Elizabeth City State University—historically have not benefited from funding levels equivalent to those of the Historically White Institutions (HWUs). These concerns generated the desire to assess capital *equity.*

In addition, UNC General Administration was in early stages of an enrollment projection and planning exercise. Based on demographic analyses, North Carolina expects that its universities will experience growth of about 48,000 more enrolled students, an increase of 31 percent, by the year 2008. As UNC General Administration was undertaking a detailed exercise to establish enrollment growth targets for each institution, the General Assembly became concerned about the *adequacy* of the University's campus facilities to accommodate such dramatic growth.

Hence, the *Special Provision* was formulated to require analyses of both *equity* and *adequacy* and the undertaking was conceived as the *UNC Capital Equity and Adequacy Study*. What was most unusual was that the language of the *Special Provision* required assessment not only of those facilities typically funded from state resources, but *"all facilities that contribute to institutional mission."* The language was explicit in mandating that the *Study* must address facilities funded from the General Fund, from institutional fee-supported funding, and from all other sources, including philanthropy. All types of facilities, including student service facilities, research facilities, and infrastructure, were to be included. Based on prior work that Eva Klein & Associates, Ltd. (EKA) had done for UNC, EKA was asked to design and conduct this *Study*.

In its 1998 legislative session, and after the *Study* already was underway, the General Assembly amended its *Special Provision*, to add a requirement for preparation of a detailed *10-Year Capital Needs/Spending Plan*, which was to be prioritized by year, and across all 16 campuses.

Overview of the Study

Given the breadth and complexity of the legislative mandate, a complex work plan for this *Study* included many types of quantitative and qualitative analyses. First, in a Phase I, more than

100 stakeholders were interviewed, to discuss their interpretations of the concepts of *equity* and *adequacy*; alternative methodologies; and potential outcomes that would be considered a "win" for the University and the State.

The findings of these interviews were used to support methodology development for Phase II and the consultants engaged the Board of Governors and the constituent institutions in that methodology development.

Early work in Phase II included two-day visits to each campus, for extensive interviewing and campus tours. Phase II also included a series of technical "work papers," each of which addressed either a policy issue, such as *Capital Financing Alternatives*, or a technical issue, such as *Facilities Maintenance and Repair Needs*.

From the campus visits, the work papers, the facilities evaluation described below, capacity/enrollment analyses, and existing secondary data sources, extensive conclusions were developed and framed in the first *Report on Equity and Adequacy*. That *Report* included the first order-of-magnitude estimate of systemwide 10-year capital needs, at approximately $6.9 billion. In the next phase of work, the first estimate of needs was reviewed, refined, and developed into the *10-Year Capital Plan*.

Throughout this *Study*, a major priority was maintenance of participation of the many constituents. This was accomplished by extensive communications in the form of presentations, meetings of working groups, memoranda, and informal conversation.

Means to Assess Capital Equity

One of the Phase II work papers, *Capital Funding History*, was specifically intended to review the actual history of dollars of funding to each institution from state and other sources, as a means to assess historical capital *equity*. From early Phase I work, it was apparent that such an historical funding analysis was not likely to lead to sufficiently meaningful or satisfactory conclusions. One major dilemma is that data on the actual appropriations of funds only were available in any consistent form beginning from 1925. No means whatsoever was found to identify funding levels from 1794, the date of founding of the original University of North Carolina (today, The University of North Carolina at Chapel Hill), through 1924. Moreover, for the period from 1925 through 1964, only data on appropriated funding were available, while data from 1965 to the present were available both for *appropriations* and for *authorizations*. The latter includes projects built from institutional resources—whether debt issuances supported by fees, donor gifts, federal grants, or other sources.

Beyond problems of data availability and reliability, the additional drawback to historical analysis is the significant problem of mission history, mission evolution, and program development during a period that spans nearly two hundred years. Even if a reliable history of actual dollars of funding were available, it seemed unlikely that any quantitative analysis could address adequately myriad factors of mission, program, student markets, leadership decisions, and management factors.

Finally, North Carolina is among the southern states that experienced Federal Government intervention on issues of *equity*. During the 1970s, a number of studies and extensive negotiations resulted in a *Consent Decree*, under which North Carolina provided substantial special funding—

both for programs and capital—for its HBU institutions. The Board of Governors persisted beyond the terms of the *Consent Decree*, well into the 1980s and 1990s in providing substantial funding for these institutions. Thus, a third concern about analysis of historical funding is that, on a per full-time-equivalent (FTE) student basis, it was likely that the result could appear to be overfunding of HBUs.

The consultant team, working with the Board of Governors and other constituents, began, early in Phase I, to consider alternative means to assess relative capital *equity*—as well as capital *adequacy*. After much consideration and dialogue, the idea emerged that a systematic assessment of the condition and quality of facilities and campus environments—as they are today—would be a better representation of *equity* than the historical funding review. This approach is based on an important assumption: Whatever a campus is or is not today, by definition, is the sum total of the hundreds of decisions—made throughout the history of the institution, by chancellors, trustees, the General Assembly, and, since 1972, the Board of Governors. A full and fair assessment of relative campus quality today therefore would provide the best means to reveal relative *equity*. In addition, such an assessment would provide equally valuable information on overall *adequacy* (or inadequacy), to address the other part of the *Study* mandate.

II. Defining and Evaluating Facilities Quality

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Defining Equity and Adequacy

A fundamental first task in assessing *equity* and *adequacy* of facilities was that of defining just what *equity* and *adequacy* mean, converted into analytical terms. Clearly, there would need to be a quantitative component that could be related to current and future enrollment levels and a qualitative component to address concerns relating to aging, obsolete facilities, identified condition deficiencies, and other aspects of overall quality.

In prior work for UNC, EKA had proposed *Space Planning Standards* and the Board of Governors had adopted those standards. Thus, there were tools in place to assess space needs on a quantitative basis. The mandate to conduct the *Capital Equity/Adequacy Study* afforded the UNC Board of Governors an opportunity to develop a method for addressing the qualitative aspects of facilities as well.

The consultants proposed to do this by developing a new concept for qualitative standards, *Baseline Space Quality Criteria*, for the principal categories of academic and student support space. These were intended to establish principles of fairness and an appropriate application of concepts of commonality (not literal equality), given valid differences among the institutions in age, mission, size, student populations, and other factors.

The principal objective of this phase of work was to develop these proposed qualitative *Criteria* for the principal categories of campus facilities that could:

- Serve as markers for *equity*, given differences among the institutions in age, mission, and programs.

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- Form the basis for evaluation of the *adequacy* of existing facilities.
- Provide criteria for determination of the scope and magnitude of projects (with order-of-magnitude costs) that will be required to achieve relative *equity* and *adequacy* of UNC capital facilities during the next 10 years.

It was recognized from the outset that there were valid differences among institutions in age, size, mission, student populations, market demand considerations, and other factors, and that there were qualitative factors that would not be equally applicable to all institutions. The focus of the effort, therefore, was on identification of those qualitative factors that could and should—as a matter of public policy—be common to all UNC institutions.

Developing Baseline Space Quality Criteria

Proposed *Baseline Space Quality Criteria* were developed on the basis of interview comments from the 16 campus visits and through a consultative process that included participation of UNC General Administration, working panels representing the UNC institutions, and the consultant team.

During the campus visit interviews, the topic of capital facilities *equity* was discussed with vice chancellors, deans, faculty and staff, students, and trustees at every institution. The standard interview protocol included this question:

> It is a major mandate of this Study to address the question of "equity." We do not think "equity" means "equal." Rather, it should mean some commonalities that every institution has. In your view, what might be "common somethings" that the Board of Governors can develop to help achieve equity for all 16 constituent institutions.

There were a wide variety of responses to this question. These responses, together with basic quality definitions the consultant team and General Administration staff developed, were incorporated into initial drafts of *Baseline Space Quality Criteria*. These *Criteria* were developed for five broad groupings of core facilities, which included:

- *General Campus Environment*, covering the space between the buildings and the campus utilities infrastructure
- *Overall Building Condition*, which considered the overall quality of buildings.
- *General Academic Space*, which considered general classrooms, teaching laboratory spaces, library study spaces, offices, etc.
- *Science and Technology Laboratories*, which considered laboratories for teaching and research in science and technical disciplines
- *Student and Community Support Facilities*, which considered assembly spaces, residences, dining services, recreation, student unions, etc.

These categories were further organized by the appropriate HEGIS Room Use Codes and Sub-Codes.

Next, four working panels or focus groups comprised of representatives from all 16 UNC institutions participated in the development of the final *Baseline Space Quality Criteria* through day-long discussion sessions. In every case, the effort was focused on identification of those characteristics that relate to the quality of the space environment and the capability of the space

to fully satisfy program or functional requirements. It was expected that additional requirements based upon the specific needs of academic programs would continue to be identified on a case-by-case basis.

When it was completed, this effort produced *Baseline Space Quality Criteria* for a total of 22 categories of space, further organized under the five broad categories, as follows:

I. Campus Environment Criteria
- Open Spaces
- Utilities Infrastructure

II. Campus Building Criteria
- Overall Building Condition

III. General Academic Space Criteria
- General Classrooms
- Teaching/Research Laboratories—Non-Science and Technology
- Computer Laboratories
- Offices and Conference Rooms
- Study Rooms
- Library Stack and Service/Processing

IV. Science and Technology Space Criteria
- Teaching/Research Laboratories—Science and Technology
- Wet Laboratories
- Dry Laboratories
- Chemical and Hazardous Materials Storage
- Animal Quarters
- Research Laboratories for Science/Technology—Additional Requirements

V. Student and Community Support Space Criteria
- Assembly
- Food Service
- Residential
- Scope of Facilities—Student Support
- Student Support
- Scope of Facilities—Physical Education and Recreation
- Physical Education and Recreation

Examples of these *Baseline Space Quality Criteria* are shown as Figure 1: Overall Building Condition and Figure 2: General Classrooms.

Characteristic	Baseline Space Quality Criteria
1. Structural condition	The building structure and envelope shall be in sound condition, fully capable of supporting current functional requirements.
2. Maintenance condition	The building and all fixed furnishings and equipment, lighting, climate control, utilities services, and other installed systems shall be in a properly functioning state of good repair.
3. Code compliance	The building and all installed systems and equipment shall be in compliance with all applicable fire safety and building codes and standards, as required based on building age and renovation status, or other established legal or regulatory requirements.
4. Environmental compliance	The building shall comply fully with all applicable environmental protection and quality standards and criteria.
5. Energy efficiency	To the fullest extent feasible, the building shall confomr with all applicable codes and standards for energy efficiency.
6. Hazardous materials compliance	All asbestos and other hazardous materials shall have been removed or abated in accordance with applicable codes and standards.
7. Safety	External building access, entrance, and egress shall provide adequate conditions for personal safety.
8. Accessibility	External access, internal circulation, and rest rooms shall comply with ADA standards as required for program accessibility.
9. Service access	Adequate external access to the building shall be available for service and support.
10. Maintainability	Floors, walls, and ceilings shall be finished in appropriate, easily cleaned materials that will permit the building to be maintained in a clean and attractive state.
11. Connectivity	Conduits, raceways, cableways, or other wiring support, and wiring closet space shall be provided to support the installation of telecommunications plant and equipment.
12. Support space	Adequate space shall be available and provision made to fully accommodate such services as housekeeping, solid waste disposal, materials recycling, hazardous materials disposal, and other support requirements.
13. Community space	Sufficient dedicated space shall be available in each building to provide suitable community space for faculty, staff, or students as appropriate to the building function.
14. Restrooms	Adequate restroom space shall be provided throughout the building.

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Characteristic	Baseline Space Quality Criteria
1. Structure	Building structure shall provide adequate floor load capacity for laboratory equipment, and a vibration-resistant environment for sensitive laboratory equipment, when needed.
2. Functional adequacy	Room configuration and the size and arrangement of student and instructional or research stations satisfy program requirements, and provide adequate sight lines. Adequate space is provided for such requirements as: Group working areas Laboratory set-up and clean-up Demonstration General support Supply and equipment storage at each work station and for the laboratory
3. Accessibility	Student stations and instructional space shall meet ADA standards wherever required to meet program accessibility requirements.
4. Room finishes	Floors shall be covered in an appropriate, easily cleaned material that will permit the room to be maintained in a neat and orderly condition. Walls and ceilings shall be finished in appropriate, easily cleaned materials. Color schemes and finish materials shall present a pleasing appearance conducive to teaching and learning.
5. Acoustics and sound control	Floor covering, wall surface, and ceiling materials shall have appropriate sound absorption and reflective qualities; and insulation against outside noise shall be sufficient to provide a teaching and learning environment free of distracting noise levels.
6. Climate control	HVAC systems, together with adequate control systems, shall provide a comfortable teaching and learning environment at all seasons of the year.
7. Lighting	The installed lighting system shall provide an adequate quality and level of both task and general lighting for the teaching and learning environment, and shall be provided with controls to vary or adjust the lighting level as required for specific needs. Appropriate window coverings shall be provided to permit unimpaired use of audio-visual or other teaching equipment.
8. Instructional support	As required, laboratories shall be equipped to support instruction, with: Connectivity to campus data networks and the Internet. Chalkboards, whiteboards, projection screens, demonstration benches, and other teaching accessories. A full range of audio-visual equipment.
9. Safety and security	Teaching laboratories shall be equipped with fire detection and suppression systems appropriate to the laboratory function. Adequate compartmentation shall be provided to limit fire damage risk. Appropriate access control shall be provided.
10. Storage Rooms	Adequate locked storage spaces for supplies and equipment shall be provided convenient to laboratories and fully compliant with all safety codes and standards for all materials and equipment stored in the facility.

Figure 2. General Classrooms. (Teaching/Research Laboratories—Non-Science Technology.)

Applying the Quality Criteria

Once established, the *Baseline Space Quality Criteria* provided the basis for an overall qualitative evaluation of the core academic and student support facilities at all 16 UNC institutions. This, in turn, identified the renovation, modernization and replacement requirements which formed a major part of UNC's *10-Year Capital Needs Plan.*

It was recognized early on that, due to both time and cost constraints, a detailed room-by-room evaluation of facilities would not be feasible. The resources required for such an effort were simply not available. The team elected instead to develop a self-assessment approach using a computer-based cost model. With such a model, campus facilities staff knowledgeable about building conditions and characteristics could assess campus buildings against the quality *Criteria.* While not resulting in detailed engineering studies of all the facilities, this approach would establish the scope of work required to bring facilities up to the established quality level. The project management team initiated a national search through a *Request for Proposal* process for a firm with the required qualifications and experience to conduct such an evaluation. This led to engagement of Vanderweil Facility Advisors (VFA) of Boston, a firm with extensive experience in similar facility evaluations using a Web-based approach.

The Facility Condition and Quality Index (FCQI)

The qualitative evaluation that the campuses conducted, with the method that VFA established provided an order of magnitude assessment of the cost of work needed to upgrade existing facilities to the level established by the Baseline Space Quality Criteria. An important additional dimension to the assessment was the need to consider purely condition-related facilities deficiencies. In North Carolina, these have been identified for the past ten years through a Facilities Condition Assessment Program (FCAP) conducted by the State Construction Office. These inspections identify only work required to restore facilities to original condition, as well as life safety code deficiencies, and to not consider questions of functional or qualitative obsolescence. The consultants did not want to duplicate this work, but rather to incorporate FCAP data with the qualitative evaluation to determine the overall cost required both to bring a facility to good condition (in FCAP terms) and to meet the new qualitative Criteria.

To provide a comparative measure of the scope of work required for each facility, and overall to compare the quality of the 16 campuses, the team developed the idea of creating a variant of the well-known *Facility Condition Index (FCI),* which the team called the *Facility Condition, Quality, and Adequacy Index (FCQAI),* later shortened to *Facility Condition and Quality Index (FCQI).* This index is the total cost of correcting all identified condition and quality deficiencies divided by the replacement cost for a fully adequate facility.

In many cases, the FCQI exceeded a value of 1.0, meaning that it would cost more to upgrade and modernize the particular facility than it would cost to build a new one. When this occurred, the methodology called for substituting a replacement building in the *10-Year Capital Needs Plan.* In some cases, a replacement facility was planned and the existing building was costed for modernization to meet another, less demanding programmatic requirement.

III. Conducting the Evaluation

Tom Davies
Executive Vice President, Vanderweil Facility Advisors

Building a Model for Success

The project required integration of the existing FCAP physical condition cost data with qualitative *adequacy* information that had not yet been collected. Both forms of data needed to be brought together within a very short time frame, in a method that would enable analysis and reporting at a later date, and ultimately for inclusion into the *Report of the Capital Equity/Adequacy Study* and in its related *10-Year Capital Plan*. Furthermore, data needed to be assembled in a way that would enable selectively sorting between FCAP deficiencies and qualitative inadequacies arising from application of the new *Criteria*.

To enable this analysis, separate cost models were created for five building types: Academic, Low Intensity Laboratory, Medium Intensity Laboratory, High Intensity Laboratory, Student Support, and Residential. These cost models were used for nearly 800 buildings in the *Study*, to ensure continuity of the data. Costs for both qualitative characteristics and physical condition were added together and divided by the replacement cost model to arrive at the *Facility Condition, Quality and Adequacy Index (FCQAI)*.

Given that FCAP data already existed in an electronic format, the focus of the entire project was clearly on developing a systematic means of getting space adequacy information quickly and efficiently, and to ensure that the data were validated.

Project management and implementation of the process was performed by VFA. The process involved a highly complex scope of activities that required careful coordination. Above all, the project required rapid collection of raw cost data within three weeks for nearly 800 buildings comprising more than 30 million square feet, and located at 16 separate institutions in North Carolina.

Web-Based Survey

Given the magnitude of the data collection effort and the short time frame in which to complete it, a hard copy paper process would have been too cumbersome and slow. An imaginative and innovative solution was required. It was determined that a Web-based CPMS computer database management program was the best choice for effectively collecting the data and achieving the desired end results. A technological solution involving the automated features of computerized relational databases was the only logical tool to accomplish this mission. This alternative reduced traditional steps required and minimized chances of transcription errors. Furthermore, a computerized relational database, coupled with the powerful capacity of the Web enabled comparison of existing data with "real-time" information. Accordingly, Internet based technology provided the best methodology for this project.

The VFA team consisted of a Project Director, a Project Manager, four registered professional Facilities Consultants (architect or engineer), a Software Manager, two Software Developers, and administrative support. EKA's project manager, other EKA personnel, and UNC General Administration personnel also were involved. Through intensive collaboration among UNC General Administration,

EKA and VFA, the Web-deployed questionnaire was developed and in use on the Internet within ten days.

The VFA team led a brainstorming/methodology refinement session with UNC and EKA staff. From this think tank session emerged the design of a *Data Collection Questionnaire* which would be provided on-line. It was imperative that the questionnaire be designed to respect the intelligence and time constraints of the UNC facilities personnel that would be expected to complete it—or there would be risk that institutional personnel would not give priority to conducting their reviews and providing data accurately.

The *Data Collection Questionnaire* began to take the form of a multiple choice and easy to read list of 26 questions, answers to which would not require off-screen calculations using note pads, pencils and calculators. The *Questionnaire*'s sole purpose would be to collect qualitative *adequacy* information regarding the facilities. FCAP data were included in the Web site for reference purposes, to avoid duplication of project needs and costs.

Mobilization & Training of Campus Staff

Because of the deadline for *Report* submission and the many other analyses ongoing, time was critical. The VFA team needed to train more than 50 UNC facilities personnel on use of the Web-based data gathering tool. This was accomplished in one all-day orientation/training session at UNC General Administration.

The UNC facilities staff group met in lecture hall format for about two hours for visual presentations of the methodology. After lunch, the group split into four hands-on, small group work shops, each with a computer connected to the Web site. VFA's Facility Consultants worked closely with UNC facilities staff to meet the goal of collecting hard cost data for inclusion in the analysis. The experience level of UNC facilities personnel in the field needed to be augmented by VFA in order to get all required raw data for this project.

The VFA Facility Consultants then were dispatched to each of the 16 UNC constituent campuses for the purposes of further training the data entry personnel and in an ongoing effort to ensure continuity and comparability of the data effort among all campuses.

Monitoring the Process

VFA provided the umbrella supervision for issuing changes, policy directives, updates to the Web site, responding to questions, and identifying other pertinent issues as they arose. The vehicle for such communications was simultaneous e-mail to 16 campuses and to the other Study staff, and posting changes to the Web site. The data collection procedure continued during three weeks. During that time, VFA monitored the progress of building the database on-line. When problems arose, the VFA crisis intervention teams were put into action to get the process running smoothly again. This work included support via telephone and on-site visits by VFA staff. Through early intervention at problem points along the process, the data collection program was kept on schedule.

Reporting and Analysis

When all the data had been collected, VFA designed custom reports to the specifications of UNC and EKA. With virtual mountains of available data, the task of determining which information was indeed useful to the identification of needs took center stage. VFA began "slicing and dicing" the database to EKA's specifications and prepared a wealth of spreadsheets to fuel EKA's writing of the first *Report* and the *10-Year Capital Plan*. As the analysis continued, EKA provided further requests to cull and sort specific data, and VFA responded with more reports and individual spreadsheets.

Technology

VFA designed, built, and deployed the interactive Web site in ten calendar days. The process involved writing the questionnaire, the middleware, and the Active Server Pages (ASPs). VFA's staff of architects and electrical and mechanical engineers created the middleware where the cost models for the individual questions reside. VFA's software developers wrote the program code for the ASPs. The Web site utilized a Microsoft database, supported by the Internet Explorer 4.0 Web browser. The design of the ASPs allowed participants to download campus questionnaire data into Microsoft Excel spreadsheets directly from the Web site, and print out reports. The Web site was made accessible to the 16 constituent campuses via 16 unique passwords, and one administrator level password. VFA hosted the Web site on a server at VFA's Boston office.

With the remarkable ability to allow literally hundreds of people to simultaneously build and use a database, the solution for gathering the qualitative *adequacy* data was born. This powerful technology:

- Enables distributed data collection. Data were collected and inserted by UNC persons all over the State, based on simple to understand instructions and with only a Web browser, thereby significantly reducing associated costs.
- Embodies consistency of methodology. Facilities cost estimates were made in an "apples to apples" comparison, thus allowing review for potentially unreasonable cost projections made by anyone.
- Enables the team to meet the schedule. A Web-based product allows hundreds of users to simultaneously build a database of project costs in a short amount of time. Additionally, a Web-based product allowed EKA and VFA to track the progress of data entry in real time, and thus to reasonably manage progress toward meeting project milestones along the way.
- Greatly speeds analysis and reporting. By being automated, the solution provided extremely fast recovery of data, projection of trends, cost reporting, and could be accessed by multiple users at remote locations, thus saving time and money.
- Provides longevity to the data. The electronic knowledge base can be updated and altered easily, supporting ongoing reuse, vs. traditional paper-based solutions.

Conclusions

The technology employed for this project allowed the participants to quickly grasp the magnitude of the issues and to apply cost effective workable approaches to achieve desired solutions. CPMS Web-based technology has broad application in the facilities management industry. This case study has demonstrated one such application employed to meet complex needs of a public university system. The process and end products are however directly applicable to numerous other building owners and facilities types, in both public and private sectors.

IV. Results and Current Developments

This facilities evaluation generated a first estimate of needs for bringing all core facilities and general campus environment and infrastructure to the level of the *Baseline Space Quality Criteria* of about $3 billion. While expansion capacity needs and specialized facility needs generated two additional large sums, these needs relating to renovation, modernization, and replacements, to meet the *Criteria*, are by far the largest single component of the *UNC 10-Year Capital Plan*.

In early April 1999, the first *Report* was presented to the UNC Board of Governors, which formally adopted it and forwarded it to the General Assembly. Already, the value of this evaluation process is apparent in that it is serving to shift attention in the State from the typical interest in funding primarily new capital facilities to a much more significant emphasis on renovations, modernization, and capital preservation.

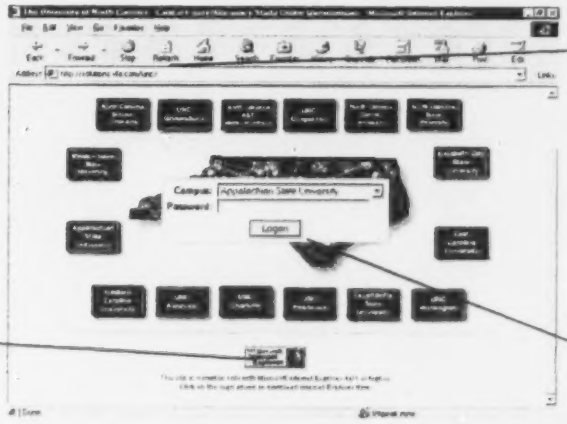
As of this writing, the General Assembly is preparing to consider a new ten-year funding program to address the majority of identified needs. It seems that one major impetus for considering a radical departure from North Carolina's traditional manner of funding capital has been this special assessment of quality.

Instructions to Users

Step1

Login to Site

Gaining access to Web Site



Web site address:

http://solutions.vfa.com/unc

Press enter

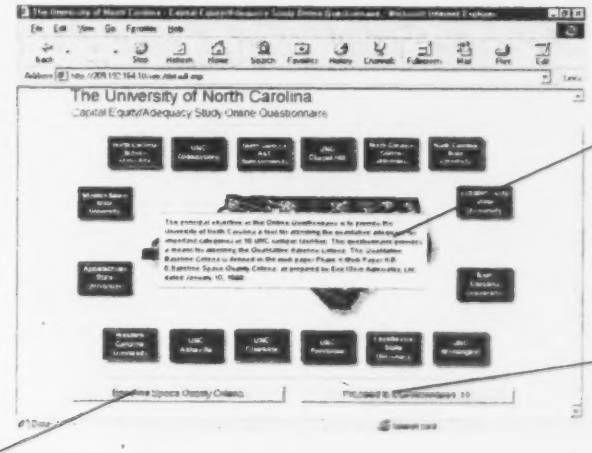
Download Internet Explorer 4.01

Select campus and provide password

Step2

Introduction

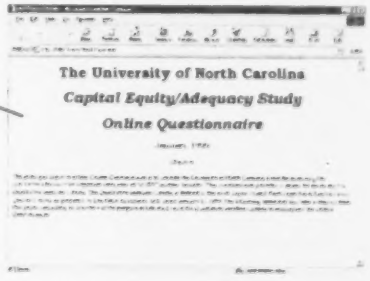
Overall process



Project Summary

Select to access Capital/ Equity Adequacy questionnaire

Select to access Capital Equity/ Adequacy Study reference documents



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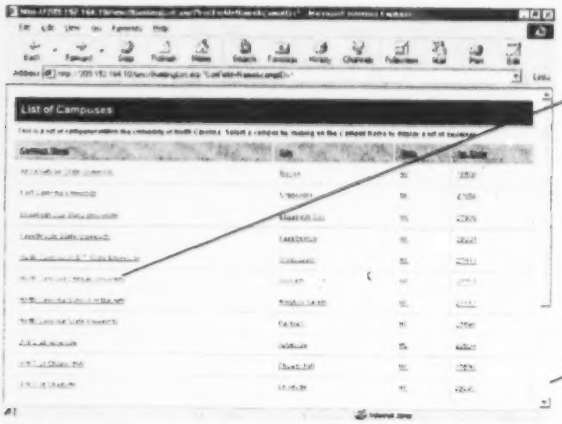
University of North Carolina Capital Equity/ Adequacy Study

Step3

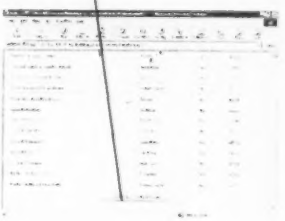
List of Campuses

List of all Campuses in UNC system



Click on a Campus to access List of Buildings

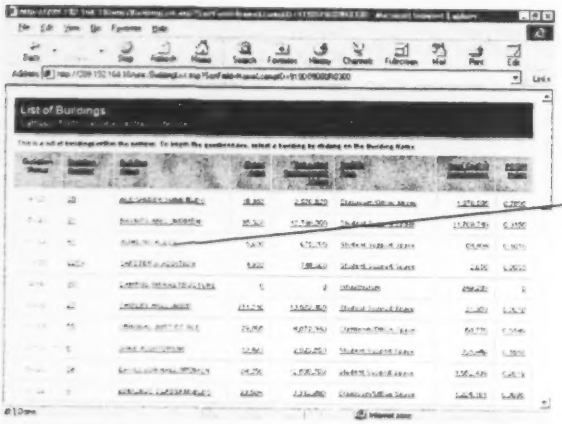
Return to previous screen (button located at bottom of page)



Step4

List of Buildings

List of all buildings on a campus

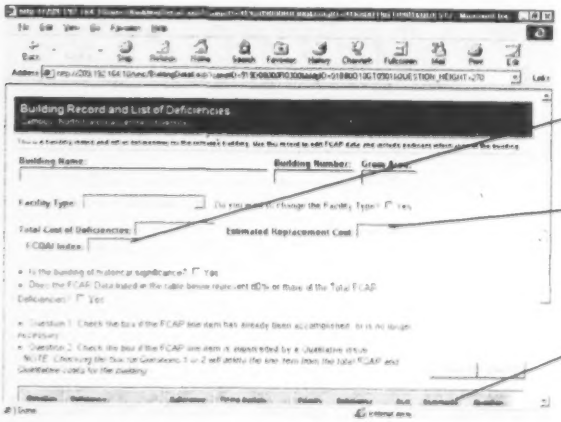


Click on a building to begin questionnaire and view FCAP data

Step5

Building Record and List of Deficiencies

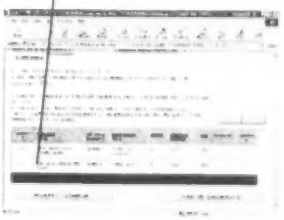
General building data and deficiency summary table



FCQAI Index

Estimated Replacement Cost

FCAP Data



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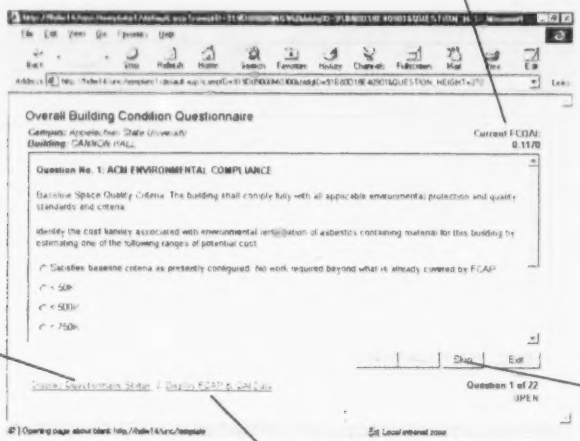
Step 6

Questions

Question forms

FCQAI meter

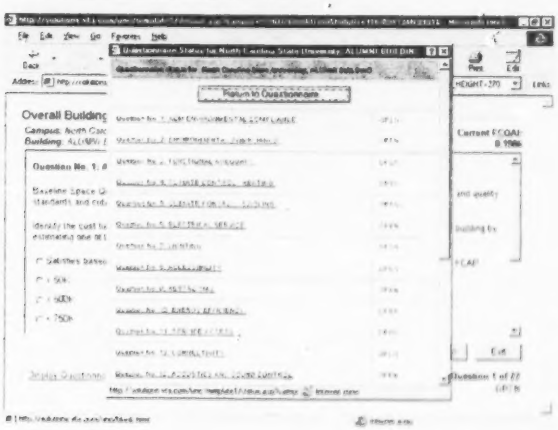
Current FCQAI: 0.1170



Click to display number of questions answered

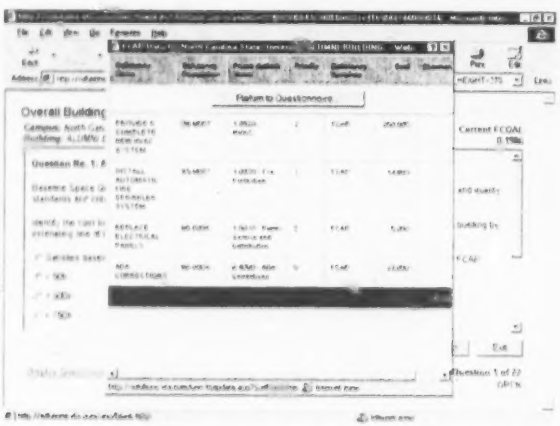
Navigation bar

Display Questionnaire Status



Click to view all FCAP data relating to this building

Display FCAP & QAI Data



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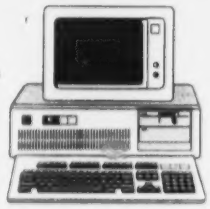
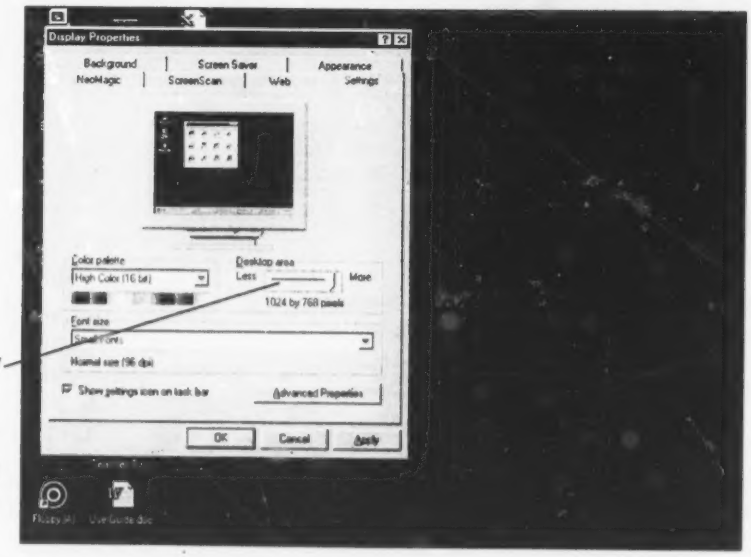
Appendix A: Computer Requirements



- Pentium 166 MHz CPU or greater
- 64 MB RAM or greater
- 500K free disk space
- Compatible Monitor
- Keyboard & Mouse SVGA
- Microsoft Windows 95 or NT Operating System
- Microsoft Office 95 or later
- Microsoft Internet Explorer 4.01
- Internet connection via T-1 or faster

Hardware Settings:

- Monitor screen resolution to be set to 1024x768



Find display properties by right clicking on the windows desktop. In the properties table (shown) go to the settings tab and reset the desktop area to 1024x768.

Press OK or Apply and restart your computer to accept new settings

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Appendix B: Underlying Concept

Facilities Condition Index

The following is a brief description of the Facilities Condition Index.

FCI is the result of dividing the cost to repair a building's deficiencies by the replacement cost of the specified building.

$$\frac{\text{Deficiency costs in dollars}}{\text{Current Building Replacement Value in dollars}} = \text{FCI}$$

The total value of existing deficiencies is divided by the current replacement value for the building resulting in the FCI. The higher the FCI, the poorer the condition of the facility. For example, if a building with a replacement value of $1,000,000 has $100,000 of existing deficiencies, the FCI is $100,000/$1,000,000 or 0.10. This principle is expanded to cover groups of buildings and entire district.

FCI is a standard measure used throughout the country; it is recommended by both the National Association of College Business Officers (NACUBO) and the Association of University Facility Officers (APPA).

Facilities Condition Quality Adequacy Index (FCQAI)

This project expands on the definition of FCI. Existing facilities deficiency data from the FCAP (Facilities Condition Assessment Program) database are supplemented with quality adequacy (QA) deficiencies. This provides a database that addresses both facilities condition information and Qualitative Adequacy (QA) requirements. The electronic questionnaires used for this project are the means for gathering QA costs. The formula for deriving the FCQAI is provided below.

$$\frac{\text{FCAP} + \text{QA}}{\text{Current Building Replacement Value}} = \text{FCQAI}$$

Changing the Corporate Culture

William Tam
Facilities Administrator
St. Mary's University

From time to time, we need to step back and look at the organization that we lead. Often we see only trees and not the forest, we see taillights and not the traffic jam, and we see the lawn tractor but not the pattern that has been created. It reminds us of the story about four visually challenged people, each describing their own reality. Where one felt a tree trunk, another felt a canvas sail, another a thick and heavy hose, and the last felt a coarse rope. All, in fact, were having an encounter with an elephant. The development of perspective allows us to understand our reality.

We must examine what we are trying to do and how we are trying to do it. An examination of our organization should provide us with clues about what to change and how to change it.

It is the writer's premise that every organization has a culture, whether we realize it or not, whether it be strong and well organized or weak and fragmented. The leader has the opportunity to develop the work culture into a tool to increase people's effectiveness, and to produce a sense of satisfaction in developing the human side of each and every individual. According to Robert Greenleaf, leaders have a responsibility to provide a work place for people to grow and develop, and through this, the organization will grow and develop to meet its own financial and social goals. As Greenleaf states: "The business exists as much to provide meaningful work to the person as it exists to provide a product or service to the customer."

What Is Culture?

The culture of a group or society is a set of values, symbols, history, tradition, norms, mores, and artifacts that the group holds in common. Culture is the glue that holds society together. Some elements are considered as material culture, consisting of the physical objects that people make and that they attach meaning to, such as food, clothes, houses, and hairstyles. Other elements are considered nonmaterial culture, the way of thinking of the group, including norms, values, ideology, symbols, folklore, and language.

Values are the basic beliefs; they are strongly held attitudes about important ideas. Values form the basis for all decision making and determine what is acceptable in human behavior. Values are often consistent with religious ideals. The values of freedom and individual rights are part of our heritage.

In addition to values, cultures have developed their own history and tradition, ways of doing and thinking about things, including behavior patterns. The Thanksgiving tradition of most Texans includes the family dinner followed by the Dallas Cowboys football game. We follow the same behavior patterns year after year. So much that it becomes part of our history. I recall that I lived in New Orleans when Roger Staubach was knocked out of the game and a young quarterback named Clint Longley became the hero of the day. I also remember the Ice Bowl, when Dallas played Green Bay in the Championship Game and lost in the last minute because of a quarterback sneak.

From cultural values and tradition evolve accepted forms of behavior. These are called norms. Norms may be customs or folkways that are informal in nature and govern the customary ways of doing everyday things. Customs may involve the acceptable manner of greeting: a bow from the waist, a handshake, a hug, and a kiss on the cheek. Then there are mores, which are customs or rituals that the society passes from one generation to another. Rituals are behavior patterns, or a series of actions, which are seen as vital to society and morally offensive if violated. The wedding ritual is an example. The traditional wedding ritual consists of not only exchanging vows, but also kissing the bride, tossing the bouquet, cutting the cake, and throwing rice.

Norms that are codified, or written down, are called laws. Laws are written down so that they may be enforced. In present day society, the police enforce the laws and the legal system prosecutes the offenders.

Informal history and tradition are contained in common stories called folklore or myths. A myth is a story about human experience involving the sacred. A myth is often used to explain the origins of religious traditions, in a sense "where we came from and where we are going." Folklore, on the other hand, consists of stories about more mundane activities of daily life. These stories are passed from one generation to the next. Folklore uses imaginative descriptions of why people live the way they do. Folklore often contains a truism or moral to the story. Remember the story from Aesop's Fables about the boy who cried wolf. It reminds us not to call for help unless we really need it. Or recall the story about Paul Bunyan, who reminds us about the "size and grandeur" of the American frontier and encourages us to work hard to tame the new land.

Rituals are patterns of speech or behavior that are used to create or sustain the sense of connection to the social system. The ritualistic singing of the national anthem at sporting events helps reinforce national unity. The ritual of greeting serves to reinforce social relationships. In their book *Corporate Cultures*, Deal and Kenedy describe the ritual of a physician "scrubbing" for seven minutes before an operation. Although, the germs are destroyed in the first 30 seconds, the physician continues "the ritual" because interruption would indicate that the physician is "ill-prepared." The ritual provides a sense of security during the high-risk operation.

A rite of passage, on the other hand, is a ceremony use to mark and accomplish the transition from one social status to another. Examples of rites are Barmitzvah, baptism, a wedding, or the Order of the Arrow Ordeal in Boy Scouts.

Art and Artifacts are symbols, weapons or pottery. They are physical representations of the culture. The symbol can be anything used to represent something more than itself. Words are literally nothing more than sounds or collections of markings. When letters are arranged in a certain way, they spell out a word. Thus the symbols become language. Language consists of words,

which represents concepts. Other symbols may represent larger and more complex ideas. The study of signs and their use in social life is called semiotics. A sign uses a "signifier" such as a word in order to point to or represent a "signified" such as an object, idea, feeling or experience. Like the word BANANA represents the yellow fruit, the object can be associated with a feeling or emotion or another object, such that the sign produces the emotion or other object directly. Therefore, when you hear the word BANANA, you think directly of a monkey. Likewise the flag is more than a sign of the country; the appearance of the nations flag brings to mind thoughts of heroism, values, wars, and ideals of the nation and its people.

Culture is in constant flux, being acted on by external forces. Some changes, such as electric lights, automobiles, and Levi's, result from cultural innovation, the process whereby new cultural elements are created. Others, such as pizza parlors, reggae music, and punk hairdos, come from cultural diffusion, the process whereby elements of one culture or subculture spread from one society or culture to another.

The person in culture is viewed as the "self." The self is a relatively stable set of perceptions of who we are in relation to ourselves, to others, and to the social systems. The self is organized around the self-concept or self-image, the ideas and feelings that we have about ourselves. The looking glass self is based on how we think other people see and evaluate us. The self is also based on the cultural ideas about the social statuses that we occupy. The ideal self consists of ideas about who we ought to be, rather than who we actually are. The comparison of our self-concept with our ideal self is self-esteem, which determines the level of positive or negative reward we have for ourselves. Another interesting concept is the self-fulfilling prophecy, which is a cultural belief that things become true because people act as though it is already true. We will see how these sociological and psychological aspects of the human person are important for the understanding of the role of organizational culture.

Corporate Culture

Corporate Culture is the glue that holds the workforce or an organization together. Some corporate cultures are strong and effective; others are weak and fragmented. Much has been written in the last fifteen years about the subject dealing with large corporations like IBM, Southwest Airlines, Ben and Jerry's, and Nordstrom's. Much of what has been written has been the result of searching for a new corporate identity in response to the re-engineering, downsizing, or right sizing in past years. The discussion focused on the bi-directional nature of the relationship between corporate culture and corporate strategy. Both concepts impact each other. In order to implement a corporate strategy, cultural change may be necessary. On the other hand, culture can facilitate or limit the strategies that are considered. There are many examples that have been will documented, for example, Lee Iacoca and Chrysler in the 1970s and Apple Computers in the early days.

The benefits of a strong corporate culture should be an increase in productivity, with lower operating expenses, and a streamlined and responsive organization. The strong corporate culture clarifies the goals and purpose of the organization, releases the power of people to become self-directed and self-controlled, motivated, and empowered. The slow moving, obsolete, bureaucracy is hampered with policy manuals and many levels of management, and poor communication. As a result, it is not able to respond to the changes in the environment. The old organization is not

responsive, it has lost contact with its customers, and it has lost its competitive advantage. However, the new organizational culture is being developed which creates an environment and releases the power of the human person. It installs new streamlined processes, which allows a rapid and intense response to customer's demands. In order to affect organizational change in the 80s, organizations proceeded to change their corporate cultures. They accomplished this by changing or re-discovering their core values. Thus, new culture created meaning.

This is the heart of the process and perhaps the most fascinating. How does this process work? How does culture create meaning? Performing the ritual creates the meaning. The most obvious example is the longevity award. A longevity award is given to recognize staff who have worked at a company for a length of time. Notice there is value, that being, the worker has value. But more importantly, the worker's "lengthy service" is determined a value. What is the award? It may be a "gold watch," a "pin," or a certificate. The award itself is not as important as the symbol that it represents and the ritual itself. How would you explain to a cynic that the $5 "pin" has value? The cynic would say, "give me the cash instead." Since meaning is attached to the symbol, the "pin" or award has a value beyond its monetary cost.

According to Deal and Kenedy, corporate cultures can be classified into four categories depending on two factors in the marketplace, the degree of risk associated with the company's activities and the speed at which the company, and their employees, get feedback. The four cultures are shown in Chart #1.

	Quick Feedback	**Slow Feedback**
High Risk	Tough-Guy Macho	Bet-Your-Company (Bettors)
Low Risk	Work-Hard	Play-HardProcess

Chart #1: The Four Generic Cultures

The tough-guy, macho culture has both high risk and quick feedback. Police departments, surgeons, fire and EMS, construction, cosmetics, management consulting, venture capital, advertising, television, movies, publishing, and sports are organizations that fall into this category.

Quick, intensive feedback and many small risks typify the Work-Hard, Play-Hard culture where no one sale will break the deal. Success comes with persistence. The primary value is the customer and their needs. Examples in this category are sales organizations, real estate, computer companies, door-to-door sales, mass-consumer-sales, office equipment manufacturers, and retail stores.

The Bet-Your-Company (Bettors) is a culture built on high risk, but low feedback. It takes millions of dollars of investment and years to develop, refine, and test the project. The stakes are very high for the industries like capital goods companies, investment banks, architectural firms, Army and Navy in the development of weapons, oil and gas exploration, aircraft design and development.

The low risk, slow feedback (Process) culture consists of banks, insurance companies, financial-service firms, government agencies, utilities, and heavily regulated industries like pharmaceuticals.

Each of the above cultural type has its own rituals, survivors and heroes, strengths and weaknesses. The rituals give meaning to the work and thereby improve performance.

The tough-guy culture tends to focus on speed and high risk, so the rituals are intended to "protect" them from what is vague and unknown. They tend to be superstitious by wearing certain clothing, having certain members on the team, or bonding with some members and excluding others.

The work-hard, play-hard culture understands that success doesn't come from better burgers, it comes from a faster turnaround at the counter. McDonald's has created a mystique of quality, service, friendly, and value—QSFV. The rituals consist of contests, meetings, promotions, conventions, and rallies.

The primary ritual of the Bettors is the business meeting. Since they are faced with high risk and slow feedback, they have ample time to contemplate each move precisely. The business meeting is formal, with top-down decision making.

Finally, the process culture has low risk because no one transaction will make or break the company. Rituals center on work patterns or procedures with long, rambling meetings, and a tightly structured hierarchy.

The corporate culture needs to be changed when it can no longer facilitate the strategic goals of the organization. Cultural change can be extremely difficult, depending on its strength of the existing culture. An organization that is loosely organized will be more easily changed. In a strong corporate culture, change may need more severe action, like a major crisis.

Barry Phegan, in his book *Developing Your Company Culture*, describes organizational culture in the workplace by thinking of culture as a circle. The bottom half is operations, **what** we do, the hardware, systems, controls, production, and profits. On the top is the human half, **how** we must do operations, with meanings, communication, trust, relationships, and involvement. According to Phegan, a well-developed work culture must have both halves in balance. The open and balanced work culture is highly productive because it allows people to bring more of themselves to work. The unbalanced work culture, where the operations half is much more developed than the human half, is much less effective. Creating a strong corporate culture will allow the development of the human half of the company. Phegan goes on to explain the Circle of Culture by presenting ideas on evolution and culture. He presents the following chart for consideration.

With all living things, consider the age of their development:

1.	Physics, matter	15 billion years ago
2.	Life	3.6 billion years ago
3.	Competition	1 billion years ago

With the coming of humans two to three million years ago, we add:

4.	Language	1 million years ago
5.	Experience, Awareness	3,000 years ago

Evolution has brought about these realities. In the same way there are associated concepts that develop in an organization.

The Circle of Culture contains five levels of Evolution, Culture, and Leadership. The first is called Physics, consisting of the chemistry, equipment, hardware, engineering and technology. The second is called Life, consisting of systems and processes, biology, operational procedures and methods training, software, efficiency. The third level is called Competition, consisting of economics, authority control, "power," dominance, politics, win-lose, democracy, rules, laws, ethics, information, productivity, profits, markets, decisions, behavior. The fourth is called Language, consisting of communications, listening, and meaning, the understanding of relationships, teamwork, consensus, and win-win. The fifth level is called Experience, consisting of feelings, trust, fear, caring, values, involvement, and satisfaction.

The Cultural Leader is able to balance human values along with work tasks. They are able to examine and understand the areas of weakness and the how to get each level in balance.

Phegan points out that #4 (language) as the biggest opportunity to develop the work culture. He also recognizes that #2 (work processes and systems) are usually greatly improved as balance is reached.

Developing the corporate or company culture serves as behavior control. We do not mean control in the sense of "people forced to act as robots," nor do we mean a work force who respond like Skinner's rats in the maze. Behavior control means the conscious human choice to perform work tasks in an efficient manner. You might call it motivation. The worker controls his or her own actions. They are internally driven. They understand not only the work task itself, but also understand how it contributes to the overall organization. They understand the "big picture." They are encouraged not only by their paycheck, they also have personal satisfaction in doing a good job. A strong culture has norms, mores, rituals, and position sanctions (rewards). The worker sees himself or herself as part of something "big", a supportive organization, which has clearly expressed its values and has applied meanings to those values. So we are obviously talking about something more than requiring conformity. Remember that in order for the modern organization to provide quick response, it cannot be held by obsolete bureaucratic rules and outdated procedures. In the old organizations, this "red tape" provided the control. The organization was externally driven. A strong corporate culture will allow control behavior by worker's internalization of values. People will "buy into the culture" if they feel that the price of acceptance is worth the benefits received in the way of money, security, job enjoyment, and so on. Promotion of the corporate culture is similar to any societal culture, consisting of the development of values, norms, history and tradition, mores, myths, symbols and meaning.

The process of acquiring the culture is known as acculturation. To become a member of a group, one must adopt certain group requirements. The Fusion Process and Exchange Theory explains how and to what extent an individual will actually acquire a culture. Most organizations

have means to help people acquire their culture. Essentially this process involves orientation and training activities. During the recruitment and selection process, candidates who would have a difficult time acquiring the culture are screened out.

It is definitely appropriate as an organization to discuss culture and strategy in relation to a physical plant department of a college or university.

Corporate Culture at St. Mary's University

The corporate culture at St. Mary's University is impacted by its Marianist Catholic Tradition. Founded in 1852, the university values:

Liberal arts education which teaches leaders to search for meaning in life in the context of Judeo-Christian religious values.

- Collaboration and the interdisciplinary approach, sharing and understanding different points of view.
- Making the world a better place, being of service to society, searching for ways to eliminate human misery, finding solutions to the world's problems, making a difference.
- Creating a family atmosphere, a close-knit environment, with high level of support systems.
- Participating in an experience of Christian Community

Work Culture of the Physical Plant Department

The strong corporate culture was developed at St. Mary's University over a period of many years due to constant and stable leadership. The administrator and three of four superintendents have worked together for over sixteen years. An extended time is required to develop a strong corporate culture.

Corporate Culture

The main characteristics of the culture center on the tenants of the mission and vision statements. Customer service, value of the human person, personal relationships, continuous self-improvement, and expression of prayer and individual spirituality are among the most recognizable components. Physical plant colleagues are known for their extra-curricular participation in intramural sports and for their participation in the academic programs at the university, on both the undergraduate and graduate levels. The departmental culture is fostered by a combination of the following elements: an active incentive program, a professional development program, and the monthly celebration referred to as the monthly meeting. All aspects of the departmental culture are integrated together into a total plan.

When did this all begin and how was it done? On August 30, 1991, the leadership team of the department met for a strategic planning retreat. The day ended with a program, consisting of ideas, understanding, and language, together with a commitment on the part of the group. We also had a list of objectives. What became clear on that day was that the physical plant department had set a clear course towards becoming a customer service organization. One of the goals was to create the training film *Customer Service with Tender, Loving Care*. The film was presented at the CAPPA Annual Meeting in 1993 and its story was told in the presentation. The film was significant for a number of reasons.

First, we wrote our own script, used physical plant staff as actors, and had a departmental member read the narrative. We had a professional firm perform the character generation and final edit to ensure its quality. The film creation was a bonding experience. Second, this film gave the department credibility outside of itself. Many physical plant departments across the country viewed this film. And finally, since the film captures our values as a department, we continue to use the film, during the hiring and interview process, in the new associate orientation program, annually as a refresher. The film has become "living history" for us to pass down from one generation to the next.

Prior to 1991, the physical plant department had already established Craftsman of the Month and Housekeeper of the Month, Craftsman of the Year and Housekeeper of the Year, and Supervisor of the Year. We had already established a Monthly Departmental Meeting to open communication between management and the work force. We had a Kudo board filled with cards and letters from students, faculty, and staff who had written to thank the departmental associates for their efforts. We had also established the 100 Point Club, a departmental reward system, which began to produce winners of the 100 Point Jacket. The monthly meeting provided the rite of passage, a monthly award ceremony. The jacket was a special symbol of accomplishment. During the summer of 1991, all supervisors were required to read *How To Win Customers and Keep Them For Life*. The book taught us a common language that we would use in our quest for developing ideas about excellent customer service. It brought home the various concepts and terms such as customers, stakeholders, internal and external customers. The department was the regional nominee for the APPA Award for Excellence in 1988 and 1989. "Brag Time" was added to the Monthly Meeting to recognize the superior performers and explain the details of their heroic deeds. The breaking down of old barriers between housekeeping, physical plant, and telephone services further supported the common goal of the group. All departments began wearing the same blue uniform.

In 1993, the Physical Plant Department won the APPA Award for Excellence. This level of recognition gave great confidence to the department. Members began to believe in themselves. We believed that we were the best physical plant department in the country.

The group had achieved national recognition. There was a self-fulfilling prophecy. We are good, therefore, we will do good work. We had convinced not only the university community, but also ourselves. New functional statements were written, with the emphasis on service to people rather than repairing things. The wording on the departmental work request form was revised from the impersonal "work requested" to the more personal invitation to "describe the problem that you would like remedied."

The significant expression of the internalized values took place between September 1994 and August 1995 as the twenty departmental members, along with eight university community and vendor representatives, participated in the Departmental Visioning Process. The conclusion was the forming of the statement and the slogan "Caring, Capable, Colleague." Each departmental member began to wear the sleeve patch indicating their personal commitment to living the values of the culture. During this time period, the Department initiated a Wellness Program to encourage mental, physical, and spiritual betterment of each individual in the department. The department also assisted in the professional development of each member by encouraging the forming of personal or career goals and plans for each member.

During the period from March 1995 to October 1996, the first line associates wrote the departmental mission statement in English and Spanish. The department was recognized at university convocation with the comments that "...the people in the Physical Plant Department set the example for the rest of the university in exhibiting the Marianist traits of friendly service, dedication, cooperation...." This demonstrated the departmental culture had been accepted as consistent with the university culture.

The Craftsman and Housekeeper of the Month and Year were replaced with the Associate and Colleague of the Month and Year. This change in name was the result of the common unity of purpose, removing any distinction of a caste. The Associate and Colleague would both be selected from any of the departmental areas, with no distinction between housekeeping and the plant, maintenance, and grounds area. The Associate was selected for their on the job heroics, the Colleague was recognized for community service or other after hours activities. The simple nomination and election by the leadership body was replaced by a mandatory speech by anyone from the department who would appear to the Departmental Advisory Committee, a peer group of elected departmental representatives.

Departmental unity was improved by the singularity of purpose to develop a mutually supportive network. This resulted in the initiation of the Ritz-Carlton Service Response. This special treatment dictates that a customer may contact any associate for any service need, and regardless of where the ultimate responsibility lies, that associate remains the customer's ombudsman until he/she is satisfied. Finally, further departmental unity was developed by the Monthly Meeting Informational Presentation by a division. The program allows divisions to take turns in providing short explanations of aspects of their work to the entire department. Departmental members explain presentations on gardening, plumbing, and lawn care.

The Vision and Mission of the Physical Plant Department

The essence of the departmental corporate culture is the blend of technical skills with the acknowledgment of and fostering of the personal relationships between the service requester and the service provider. The cultural values are summarized in the film "Customer Service—with Tender Loving Care."

We acknowledge that all staff members are hired with technical skills or at least the aptitude to develop them. We also realize the essential nature of "people-skills." For limited few, these skills are natural. We recognize that there are staff who are naturally gregarious, who easily enter into conversations with people, who smile readily, who can take "no" for an answer without a negative personal feeling. These staff are outgoing, who enjoy relating to others, and are usually very popular with the university community. These are the types of person who can walk into a room of strangers and easily enter into conversations. They are not necessarily loud, pretentious, or obnoxious in a group, but rather usually possess the natural skill with some bounce and energy. These are usually the types of persons who might sell insurance or automobiles, or work as a travel agent. For the most part, however, we have found that most associates can benefit from further training in order to develop their skills in both the technical and "people" skills.

How do you do this? For the technically competent person, you can do the following: give them confidence in themselves and their abilities, teach them the proper manner to relate, have

them understand that their relationships with customers are as important as their technical skills. To make "people skills" part of the hiring, evaluating, and incentive process.

Confidence in themselves and their abilities.

The skills of each associate must be allowed to be developed to the extent of their abilities. Self-confidence is the result of a series of positive achievements. Self-confidence is rooted in one's upbringing. Self-esteem is often related to one's occupation or job skills. The cultural work ethic that stresses hard work and the ability to improve oneself and increase ability to earn money is very important. There are also cultural inferiority feelings that need to be overcome. These inferiority feelings require that a "service provider" is some type of servant who is pleasant, greets others of higher importance, but keeps eyes cast down as a sign of respect for the importance of others. We have done much to change these processes. We encourage all associates to improve their education, either adult GED classes, trade or vocational school, or by classes at the university. Educational participation is rewarded by the 100 Point Club and is often the topic of recognition during brag time at the monthly meeting. Also included in the incentive and reward system is the focus on the positive achievements. During the Advisory Committee, each elected member is required to come to the meeting prepared to discuss positive achievements of the work group to which he/she represents. The cultural ethic of hard work is defined so that it is not in competition with the cultural value of the family and one's family responsibilities. This is accomplished by flextime, where the associate may, with the approval of supervisor and co-workers, arrange the work schedule to allow for time off when required to take a sick child, spouse, or parent to the doctor. The schedule arrangement often works for the benefit of the department because the associate can provide coverage after normal work hours or work on weekends performing tasks that can best be performed during these times.

There are many opportunities for recognition, including "brag time" at the monthly meeting, displaying letters of commendation in the Kudo corner, the annual performance evaluation, and promotion from within. Recognition provides a positive reinforcement for the worker. Confidence in oneself is the result of a long process of positive achievements. The supervisor must always be on the lookout for opportunities to praise and reward the worker. Correction should be carefully applied to avoid damaging self-confidence that may be at a delicate stage. Confidence is also related to personal dignity, therefore each associate has their name on their uniform shirt so that others may address them by name.

Teach the Associates the Proper Manner of Relating.

This is done by mentoring, giving example, and rewarding good behavior, as exemplified by the Customer Service training film. This is also by the attitude that the office or residence hall room belongs to the occupant, not to the physical plant department. Also no job is so important that advanced warning can't be given when utilities will be shut down, information about projects such as construction projects, and most importantly the practice of closing out customer contact when a service request has been completed. Proper relating is the business of all in the department, from the front line worker, to the office staff, to the administration and supervisors.

Mentoring is the process where we learn how to act from watching others. Send the worker with a mentor and have him/her observe. Role-play the situation. Give them a script. Practice with them until they get it right. When failures occur, review with them so they understand what they did wrong.

The relationships with customers are as important as their technical skills.

I am reminded of the movie "Paper Moon," with Ryan and Tatum O'Neil. Ryan O'Neil played the role of a bible salesman, who drove the Midwest in the 1930s. It was remarkable that, shortly after the death of her husband, a widow would receive a call from the "nice young man" who was selling engraved bibles. The widow was so overwhelmed with the "pitch' of the salesman that she hardly would believe that Ryan O'Neil was really a hustler. When a family member would tell the widow that she had had been hustled, the widow would respond in disbelief saying, "I can't believe it, he was such a nice young man." We may have the staff who possess the talent of performing poorly in the technical area, and receiving forgiveness. However, for the majority of the staff, performing with high quality in the technical area as well in the people skills is rare. For the most part we have staff who have above average technical skills, and below average people skills.

The worker must understand that the task is not complete until the customer is satisfied. It doesn't matter if you fix the water cooler, if you haven't explained this to the requester. The worse thing to do is to fix the equipment without telling the customer that you have completed the work. We have four ways to close customer contact. Tell the requester that you have taken care of the problem, either in person, or by leave a phone message, or a door hanger. You may also leave a message with someone in the office that knows about the problem and who you are certain will deliver the message.

No matter how fast and efficiently a technician has fixed the malfunctioning equipment, if the requester does not receive a positive comment from the service provider, all is lost. One of the tenents of the department is the relationship between the service requester and the service provider. A work request is an "Opportunity" to improve the relationship. All associates must seize each and every opportunity. Many workers resist this tenent and believe that their technical skills alone will earn them recognition, respect, and advancement. This is simply not the case. The department rewards those who possess both superior technical skills and superior people skills.

Make "people skills" part of the hiring, evaluating, and incentive process.

Skill assessment is an essential part of the hiring process. In order to make sound decisions about technical competency; the direct method of assessment must be used. This is accomplished during the interview process by direct questions, either verbal or written, about the aptitude of the candidate. Just as important is the ability of the candidate to relate to members of the university community. Often, technical staff from the construction industry will be gruff and matter of fact. Some candidates may be aggressive and question some customer requests as frivolous. Some candidates will be impatience as the idiosyncronous nature of university personnel. What is important is that the candidate may not have these skills when they are hired, but need to develop them shortly after. The probation period is used to test new hire. Technical skills are easier to assess. Often people skills need to be observed. It is best that the probationary period be a minimum of three months. The supervisor must frequently check on the customer contacts of the new hire. The people skills need to be taught. They need to be rewarded and made part of the evaluation process.

Cultural Norms

There has been an attempt since 1993 to set aside the previous list of departmental policies and set a simple single page statement in their place. This statement is included in the appendix. The total abolition of policy manuals and policy statements are, of course, impossible. The university, for example, has a detailed personnel manual for exempt and non-exempt employees, as well as a separate manual for faculty and professional staff. But the 1993 effort to simplify the Physical Plant polices was to in fact open up the organization and replace laws (policies which have been codified years before) with a general statement which reflected cultural mores or folkways. This was done by making the following points to the departmental associates. First, we trust that each associate is an adult and will make the best decision because they are good people. Second, the atmosphere between labor and management is essentially cooperative rather than antagonistic. Third, if any single associate needs written rules, then they will be written specifically for him or her after one or more violations. This can be done as a "written warning" as prescribed in the university disciplinary procedure.

There are other cultural mores that have not been written down or codified into policy but are expected to be taught to the new associate by their supervisor. Most of these originated with the Facilities Administrator and were "understood" by all supervisors. Among them were the following:

1. No more than two riders on a golf cart.
2. The driver of the golf cart must keep his foot inside the cart while riding.
3. Always come to the Monday staff meeting on time.
4. Supervisors are not to "forget" to come to the Monday staff meeting.
5. All problems between supervisors must be solved among themselves and not brought to the administrator.
6. No scooters are to be driven on the sidewalk between the Alumni Gym and the University Center.
7. Adhere to the phrase, "Praise in public, and correct in private."
8. The supervisor must visit with the Facilities Administrator each day.
9. Never close out a work order without completing the customer contact.
10. Don't track mud into the front office.
11. The sight of the backhoe leaving the physical plant compound causes elevated blood pressure for the Facilities Administrator.

Cultural Values and Cultural Taboos

We have already mentioned some of the cultural values of the St. Mary's University Physical Plant department. Others are expressed by the frequently used phrases: service in a cheerful manner, excellent customer service, getting the job done, maintaining personal relationships, taking care of the customer, and building positive family atmosphere. All values originate in the Vision Statement and are contained in the slogan "Caring, Capable, Colleague." Just as cultures have their norms, cultures likewise have their taboos. Cultural taboos are behaviors that are forbidden, or at least discouraged, either by peer pressure or by violation of a norm, such as a violation of a written policy.

The following cultural taboos developed: behaviors such as open confrontations are not tolerated, neither between peers, managers, nor with customers. High emotional outbursts, arguments, or fighting is not tolerated. Cursing or bad language, "off-color" stories or jokes are not tolerated. Failure to follow through with work or failure to complete customer contact is not tolerated. Driving a scooter or golf cart too fast.

Talking in a negative manner about a departmental member, bad-mouthing. Faking illness is not tolerated.

The Values Must Be clear and Coherent, Verbalized, and Communicated

The culture must be clear on the definition of the values and all managers must accept them. Before the Vision Exercise began, many departmental members already understood the values. During the visioning process, the understanding of the values became clearer. The result of the year long process was the development of a core group of departmental members who had met monthly to discuss and understand, using the language and concepts of customer service. The result was a clear simple slogan, called "Caring, Capable, Colleague." These three words were formed into an emblem, which was placed on the sleeve of each departmental member as our symbol of who we were. Of a department of eighty-five, there were twenty-five members who participated in the visioning process. The process of clarifying and communicating value by assigning meaning to symbols. The culture was at work.

Each month, departmental members appear before the Advisory Committee, to nominate an associate of the month. The associate is a hero, one who has embodied the values, and has performed specific acts that exemplify the value of Caring, Capable, Colleague. While the Associate of the Month is specifically concerned with heroic acts on campus, the Colleague of the Month is similarly nominated for their heroism outside the work environment, either by their community service or their participation in after hours training classes. The required nominating speech is designed to prevent the award from being assigned on the basis of popularity, but rather because of specific heroic acts which we encourage all members to follow. From the speeches, members are often cited for:

1. Their volunteering for difficult assignments such as weekend or after hours;
2. Their ability to respond by performing difficult tasks cheerfully;
3. Using initiative and working outside their job description;
4. Making emergency repairs to campus utility systems without supervisor intervention;
5. Taking a training class after hours to improve job skills.

Once the member is elected by his/her peers on the Advisory Committee, the speech is repeated at the monthly departmental meeting before the hero is presented with a prize and recognized before the entire department. The speech fulfills a unique place in the culture because it is the verbalization of the values that increases the effectiveness. Both the Colleague of the Month and Associate of the Month have other requirements which also reinforce the cultural mores, among them are perfect attendance and the lack of disciplinary action.

There are many other occasions to verbalize and communicate value of the culture. There are the nomination speeches for Colleague and Associate of the Year. Each December, supervisors appear before a selection committee consisting of both departmental and non-departmental members to present their nominating speech for Colleague and Associate of the Year.

There is brag time at the Monthly Meeting. Anyone may stand up and brag on anyone else. The reasons for heroism are always given. And everyone applauds after the reasons are heard.

It is customary in both central plant and building maintenance to hold "morning meetings." The first 15 minutes of the day includes more verbalization of values. What happened yesterday, how could we do better? Supervisors present reminders of being polite, friendly, maintaining customer contact, advance notification of work to be done, and discussion of any personnel issues.

The communication is verbalized and reinforced during the evaluation process, during the formation of professional goals, during participation in the university's convocation breakout sessions, also during advisory committee, safety committee meetings, coaching and counseling sessions, interview for a new position and each subsequent evaluation. At all these times, opportunities for verbalization of values exist. Physical Plant ideas carry into the Connections Program and Advanced Connections, both university-sponsored customer service awareness programs.

The communication is verbalized when departmental associates conduct tours of the physical plant shops and work areas during the Annual Open House held the Friday before Thanksgiving. Here the shops are "spit-shined and polished" and opened for visitation by the university community. As workers welcome the guests, they frequently have displays and educational activities where they are allowed to explain and demonstrate their expertise.

The values of the culture must be understood and discussed. Over the years, we have learned the language. Most of which came from the book "How to Win Customers and Keep Them for Life." It is unusual for blue-collar workers to discuss issues that are considered soft, which involve issues of feelings. This does not mean that we are ineffective because the staff is overwhelmed with personal problems of their staff members or because the managers are involved in the personal lives of the staff. This is not the case. Wisdom suggests that there is a line that a manger does not cross. That line defines the relationship between a manager and associate. The manager never requires the knowledge of details of personal problems. However, the manager will listen when asked, and is on guard for manipulation by the associate. For example, an associate needs a day off for a personal problem. The intensity of the personal problem is not the issue that gains the day off with pay; it is the based on the availability of paid leave days. If the leave days have been exceeded, then the worker goes without pay if he/she can't find a way to rearrange his/her work schedule. The manager assists by suggesting ways that the associate can take off and still avoid the financial consequences.

Culture Creates Meaning in the St. Mary's University Physical Plant Department

How? A lot of the work done by departmental associates is boring and repetitive. Meaning is given to this work in the same manner as high profile, high visible work.

All members are entitled to the benefits of the common reward system. Whether they are "fighter jocks" or "line mechanics", whether they are the "race car driver" or in the "pit crew," they are all eligible for the 100 Point Club reward system, or recognition of Associate and Colleague. There is no stigma nor is there a caste system. As a result, their work has value. All contributions are important. All members are taught that their jobs are as important as the faculty member in the classroom. They understand that they are a member of an organization that is bigger than they are. Departmental support creates pride and confidence, participation in activities such as intramural sports or joint university ventures such as Habitat for Humanity, sets the

physical plant worker along side of a faculty member. On the basketball court, the physical plant worker and faculty member are one-on-one, face-to-face. Both are human beings, both are colleagues. The experience of the personal encounter provides a meaningful encounter.

The physical plant work-experience provides rituals that provide meaning. Practices such as furnishing personal protection equipment, personal lockers, allowing the associate to mark the equipment as "Mary's bucket." Allowing the associate to personalize their scooters with signs and decorative items. The meaning that is attributed to the ritual is one of recognition and the feeling of ownership. There are various rituals that have been passed down. For example, the ritual of replacing a mechanical seal on a centrifugal pump. The ritual ensures that the work is done correctly and the seal is not damaged in the process. The meaning is security. Even if, for some reason, the seal doesn't perform, the associate has the security of knowing that the correct procedure was followed.

Culture also creates meaning by how work is assigned. For example, grounds, maintenance technicians, and housekeepers are assigned buildings or areas to maintain. This assignment may be for a year to several years. The associate becomes intimately familiar with the needs of the customers who use these areas. The meaning realized by the associate is "ownership—this is my area for which I am responsible."

Culture creates meaning when it creates a situation when the job becomes more than work tasks, the job becomes an avenue for recognition, a positive personal encounter, a feeling of ownership, a sense of security, a path to human fulfillment.

Culture Controls Behavior

Although the word "control" makes us think of a 1984 Big Brother-type repressive society, we must admit that controlling behavior has a place in our discussion of the workplace. We may try to control behavior by developing a detailed list of rigid rules and policies, perhaps what might be used in the antagonistic labor vs. management environment. In this society, creative ideas and new solutions can't come forward. This environment is also cumbersome and slow to react to change or to adapt to new situations. The worker may be hesitant to respond for fear that they make the wrong choice or ambiguity. "It doesn't tell me what to do. There is no rule about this. I can't make that decision. Only the Administrator can decide that."

It is more effective to control behavior using the direct method through the culture. The culture has a stated vision that is understood. The culture has a mission statement. The culture recognizes that creativity and inventiveness is essential to providing quality effective service. Informal control through peer pressure is more effective. It is more human and more direct.

The Physical Plant departmental culture would be considered Work-Hard, Play-Hard because it is low risk and high feedback. According to Deal and Kennedy, the rituals of this cultural work group can be seen in contests, meetings, promotions, and conventions. It's no wonder why the Departmental Monthly Meeting is so significant. The monthly celebration includes reading the names of associates who have birthdays and singing "happy birthday," and the reading of the names of the associates who have anniversaries of employment. Also, the meeting consists of reading the names of perfect attendees, the speech and awards for both Colleague and Associate of the Month, brag time, 100 Point Club Awards, and the safety drawing. The celebration ends with birthday cake for all.

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Corporate Culture and the Empowered Workforce

The "empowered associate" is characterized by the following:

1. Associates are able to make many service decisions on the spot, providing fast response and avoiding bureaucratic delays;
2. The realization that initiative must be rewarded and some "bad" decisions can be expected. They need to be handled carefully and with support;
3. Associates look out for each other's best interest, and the best interest of the department. They have the "big picture;"
4. The positive work atmosphere contributes to the empowered workforce.

In order for the workforce to be "empowered," some abstract guideline must exist. There are several ways of managing a workforce. In a rigid structure, there are strict guidelines, detailed procedural rules, and an often-antagonistic relationship between labor and management. This may or may not work in your organization. It depends on your corporate culture and the individuals that work in it. Some individuals work best when things are very clear. They want a detailed procedure manual to follow, presenting step by step solutions to problems or to each service call. An organization may spend all their time, energy, and resources developing such a manual.

The other alternative is to have minimum policies. But have a profound understanding of the vision and mission of the organization. Each decision, each separate and unique opportunity will be handled based upon the same vision and mission statement. Can this be taught?

The answer is yes.

The Vision and Mission Statements Originated from the Workforce

During an entire year, four groups of departmental members met monthly, and were lead through the visioning process based on Bert Nanus's book. The result was the Vision Statement of Caring, Capable, Colleague. The details of this process comprise a presentation all to itself.

The Vision and Mission Statements Require Frequent Reflection

The interpretation of the vision needs to be continually adapted and promoted. It is the basis of belief. It is like the bible is to the believer. In a similar way to the believer reading the bible, meditating, applying the belief to everyday life. We must reflect on, discuss, and share the meaning of the Caring, Capable, Colleague. We do this informally when members are recommended for Associate or Colleague of the Year. In fact, the thrust of the Colleague of the Year award is based on the statement about Caring as a dedication to Service Learning. The Colleague of the Year is distinguished from the Associate on the basis of the activities outside the work environment, such as volunteering for community service. Reflection on the Vision and Mission Statements may also become part of the monthly meeting, such as "Scoutmaster Minute" is to closing ceremony of the Boy Scout meeting. Also, opportunities must be provided for the front line workers to express the meaning of the Caring, Capable, Colleague in their own words. This is best accomplished in small groups in an informal setting. Such sharing of ideas and discussion provides the workers with confidence in their ideas, of their personal importance, and a unique feeling of importance. This reflection provides the feeling of bonding and the mystique of personal encounter. It provides the worker with feelings that they may have only found in church or with their most intimate friend.

The Vision and Mission Statements provide the basis for policies and decision-making.

All policies and decisions must be rooted in the Vision and Mission Statements. Since the Vision and Mission are proclaimed to be the highest value of the organization, any new policy must be selected only after sufficient reflection. In fact, this provides the basis of empowered workforce. With the understanding of these broad statements, the front line worker can have the confidence to make decisions without referring to a detailed manual. The worker knows that customer service skills are important, when faced with an opportunity, the worker makes the right decision. Formal policies also must rooted be in an understanding of the Vision and Mission Statements. Formal policies are most effective when developed through discussion and arrived at with consensus of the management team. This compliments the understanding of the leadership of an organization originating from a leadership team.

The Vision and Mission Statements Are Part of the Hiring Process.

Each candidate or applicant should be presented with the Vision and Mission Statements. They should be asked what they mean and whether they feel comfortable accepting the statements. Although the understanding may be vague, the applicant must understand that it provides the basis of the culture into which they are entering.

The Vision and Mission Statements are the basis of the reward (incentive) system

Many of the components of the reward system specifically require a description of the nominee's positive example of the adherence to the vision and mission statements. For example, the nominating speech for the Associate of the Month specifically requires the mentioning of tasks and behaviors consistent with the Vision and Mission. Acculturation requires that behaviors consistent with the Vision and Mission are described and promoted. For example, customer service dictates that the associate requests a change of work schedule to accommodate special requests. This is often a reason mentioned during a nomination speech. The requirement of a professional development plan for each staff member is directly related to the Capable tenant of Vision Statement. The basis of behavior modification revolves around rewarding the behaviors that are promoted and not the behaviors that are less desirable.

The Vision and Mission Statements are the integral part of the evaluation process.

At evaluation time, specific items should be mentioned as examples. Whether the "official" evaluation form is used, or whether "win-win" performance agreements are used, the result is the same. Connect the behavior to the department's vision and mission statements. It is also possible that poor performance should be related, not only to the violation of some rule, but also to the failure to provide good customer service, or failure to foster a positive personal relationship with a customer.

The Vision and Mission Statements are models for the leadership of the organization.

The leadership of the organization must not forget the tenants of the statements. Often the temptation is to use the statements when convenient only. The leadership must keep the focus on the statements, must lead, and must keep the workforce on track.

Final Things to Remember

The corporate culture is a means to an end and not the end itself. Our financial resources may be limited, but the human resources are abundant. There are many "leadership" books available but few that focus on understanding the worker as a human person. Managers who have been college-educated have been trained to think, analyze, and solve problems (situations). However, the physical plant associates, who may be limited to high school, trade or vocational training, are not accustomed to sharing their thoughts, experiences, values, and beliefs. This level of communication is essential to the development of corporate culture.

What Has Been Accomplished?

The Physical Plant department at St. Mary's University has undergone a remarkable transformation. There is a strong sense of individual self-esteem, low absenteeism, and an improved safety record. The department has a strong relationship with all stakeholders. The intra-departmental subcultures have been less evident and the department has developed a strong image in the community.

Challenges for the Future at St. Mary's Which Effect the Survival of the University

1. Increasing costs due to inflation
2. Increasing competition from other universities, by supporting the strategic plan and performing in a "niche" market for those who want a Marianist Catholic education, which teaches values face to face. The costs are high, it is expensive.
3. Increased technology that we will be required to repair and maintain. For example in electronic systems such as fire alarms and HVAC control systems, data and telephone, and communication systems the department is required to maintain.
4. The are new technologies available for us to use. New floor care products, new paints and wall finishes, new plastics, tools, equipment (ladders), brooms, and mops, floor machines, and lawn mowers, Computer Aided Drafting (CAD) systems, E-mail, Computerized Maintenance Management Systems (CMMS).
5. There are new regulations and we need to learn to follow environmental asbestos, PCB, lead, waste disposal including recycling, water pumping restrictions for irrigation and water use for plumbing systems,
6. Provide a method of measuring performance.
7. Guard against the mystique of "we're as good as we can get."

However, these changes are adjustments to a changing environment. The mission of the university remains the same and the vision and mission of the department remains the same.

St. Mary's University—San Antonio, Texas
Active Incentive Program

1. Annual Merit Pay Increase
2. 100 Point Club – jackets, steel-toe work shoes, cash prizes for attendance, safety, and positive discipline, professional development, and extra-curricular activities
3. Flex-Time
4. Departmental Picnic
5. Shop Lunch

6. Housekeeping Christmas Lunch
7. Housekeeping Thanksgiving Lunch
8. Promotion from Within
9. Perfect Attendance (Monthly recognition and Annual Plaque)
10. Colleague and Associate of the Month
11. Colleague and Associate of the Year
12. Supervisor of the Year
13. Perfect Attendance Awards
14. [illegible] University benefits

Pr[illegible]al Development

1. [illegible]ion Rebate for University academic programs
2. [illegible]ition rebate for trade and vocational training
3. Professional Goals required in Annual Performance Evaluation
4. Mentor-Protégé relationships in the shops
5. Seminars for first line workers
6. Professional Memberships for managers

Monthly Meeting: the Celebration of the Culture

1. Opening Prayer
2. Singing of Happy Birthday
3. Reading of Names of Perfect Attendees for the Month
4. Brag Time
5. Announce Associate of the Month
6. Announce Colleague of the Month
7. 100 Point Club Awards
8. Rumor Time
9. Safety Drawing
10. Safety Film, Safety Speaker, or Presentation by one Division concerning topic of information

Communication and Sharing Leadership

1. Physical Plant Open House
2. Departmental Advisory Committee
3. Departmental Safety Committee
4. Nomination of Associate and Colleague of the Month
5. Nomination of Supervisor of the Year
6. Participation at "brag time" at the Monthly meeting.

Significant Milestones in the Development of the St. Mary's University Work Culture

1. Craftsman and Housekeeper of the Month, 1983
2. Craftsman and Housekeeper of the Year, 1986
3. Supervisor of the Year, 1986

4. Departmental Monthly Meeting, 1986
5. Kudo Board, 1986
6. 100 Point Club Reward and Recognition System, 1988
7. Regional Winners of APPA Award for Excellence, 1988 & 1989
8. "Brag Time" at the monthly meeting, 1990
9. "How To Win Customer and Keep Them for Life," Summer 1991
10. Strategic Planning Retreat, August 30, 1991
11. Making of the Film "Customer Service with Tender Loving Care," 1992
12. All physical plant wears a common uniform, 1992
13. APPA Award for Excellence, 1993
14. New Functional Statements were written for each division stressing service to "people" rather than fixing of "things." The work request form was rewritten, 1994
15. The Vision Process, September 1994 – August 1995
16. Caring, Capable, Colleague Sleeve Patch put on Uniform Shirts, 1995
17. Institution of Departmental Wellness Program, 1995
18. Institution of Professional Development Plan and Goals for each Associate, 1995
19. Writing the Mission Statement, March 1995 – October 1996
20. Recognition at Convocation, Fall 1996
21. Colleague and Associate of the Month, 1996
22. Ritz-Carlton Response, 1996
23. Charles Jenkins, Facilities Administrator, wins Marianist Heritage Award, Fall 1996
24. Win-Win Performance Agreements, 1998
25. Advisory Committee
26. Monthly Meeting Informational Presentation by a Division, 1998
27. Rewrite Physical Plant Services Guide, 1998

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Benchmarking the Bigs

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In 1998, the Department of Physical Plant at Indiana University's Bloomington campus joined two benchmarking studies being conducted by the American Productivity and Quality Center (APQC). The Center describes itself as "a business-oriented non-profit source for performance improvement and decision support—information and knowledge, networking, research, training, and advisory services."

The two studies we joined (by paying a fee) were "Performance Measurement: Achieving Organizational Excellence Through the Measurement System" and "Technology-Based Training: Global Strategies for Learning." We joined the first study in order to (1) focus our department's strategic planning, (2) help us identify appropriate indicators of our organizational performance and (3) explore possibilities for establishing a formal performance measurement system for the department. Our rational for joining the second study was (1) to investigate potential technology-based training approaches we could adopt and (2) to explore possibilities for using our new computer-based maintenance management system for delivering training and on-line job performance support.

How Were the Studies Conducted?

APQC's approach to conducting its benchmarking studies is pretty simple:

- Determine a potential topic
- Solicit sponsor organizations who wish to derive the benefits of the study
- Select expert guides
- Study organizations that are on the leading edge for the topic to be benchmarked
- Share results with sponsors

Like most things, it's the details that need attention. Here is an outline of the main steps of the APQC approach, in the sequence they occurred in our studies, once the topic is determined:

1. Conduct the research to identify potential best-practice "partners"—APQC and content experts.
2. Hold a kick-off meeting for sponsor organizations; rank potential partners by sponsors' preference and obtain sponsors' input on data collection tools—APQC and content experts.
3. APQC confirms preferred partners.
4. Finalize data collection tools—APQC and content experts.
5. Collect initial data from partners—APQC.
6. Conduct site visits using a detailed guide—APQC, content experts, sponsors.
7. Analyze site visit data to determine critical success factors and enablers—content experts and APQC.
8. Summarize key findings and innovative practices—content experts and APQC.
9. Prepare and distribute final report—content experts and APQC.
10. Conduct "knowledge transfer session" to discuss findings and provide time for sponsors to plan their activities for their organizations.

What Did We Learn and How Can We Use It?

Probably the most useful parts of these studies for facilities organizations are the key findings and what we have called the "organizational analysis tool." The key findings are important because they give a "bottom line" summary of the factors that put organizations on the leading edge. Naturally, they only point at factors to consider; they don't constitute a cookbook. The "organizational analysis tool" is our department's combination of two data-collection instruments used in the studies—a preliminary questionnaire completed by the partner in advance of the site visit, and the actual site visit guide, which is a set of additional probes to get at the details.

What follows for each study is a summary of key findings and the organizational analysis tool.

Performance Measurement

Key Findings

Alignment and Commitment

1. Visible, proactive leadership and support from senior management are critical to the successful implementation and ongoing usage of a performance measurement system.
2. Understanding of the measurement system and knowledge of its application are ensured through a variety of training and communications means ¾ formal and informal.
3. Performance measurements are well integrated in the best-practice organizations and have strong, clear alignment with, and linkage to, the organization's strategic plan elements.

Performance Measurement

4. Key measurements (the "vital few") cascade from strategic goals and influence behavior and performance at all levels of the organization.
5. Effective performance measurement systems delineate cause and effect through direct integration with planning, performance management and compensation.

6. The most successful performance measurement programs are decentralized and have a formal process to "roll up" local data into the departmental measurement system.

Communication

7. Communication and education relative to performance measurement systems must be constant, clear and concise and are seldom separated from other organizational information dissemination methods.
8. Performance measurement systems employ a variety of technologies, most "homegrown," to provide accessible and useable information.
9. Feedback to the measurement system may occur formally or informally but *must* include an expectation of input by employees at all levels for measurement system architects to consider and act on.

Integration

10. Leading organizations create a strong interdependence between their measurement system and other internal monitoring and management systems.
11. Best-practice organizations tie management incentives to bottom-line result measurements ¾ most have a connection to variable compensation.

Outcomes and Results

12. The use of routinely generated, real-time, online performance information makes measures actionable and drives change throughout the organization.
13. Measures and goals must be periodically reviewed, revised and raised to keep the system current and effective.
14. Best-practice organizations consider application of information from performance measurement systems ¾ not the system itself ¾ to be the competitive advantage.

Organizational Analysis Tool

General

1. Is there an organizational entity responsible for deploying, monitoring, and continuously improving the performance measurement system? What is the reporting relationship of the entity to the facilities head or senior management?
2. Why has your organization implemented a performance measurement system?
   - To improve poor financial results?
   - To innovate capital budgeting?
   - To alleviate stakeholder pressure?
   - To sustain innovation?
   - To alleviate competitive pressure?
   - To accommodate industry practices?
   - Other?
3. Were there any barriers and/or problems your organization encountered in implementing the performance measurement system? How did you remediate such barriers/problems?

Section I—Alignment and Commitment

1. What level of involvement does top management have in *designing* the performance measurement system: no involvement, some involvement, high level of involvement?
2. What level of involvement does top management have in *implementing* the performance measurement system: no involvement, some involvement, high level of involvement?
3. What level of involvement does top management have in *maintaining* the performance measurement system: no involvement, some involvement, high level of involvement?
4. Is top management specifically trained relative to the performance measurement program?
5. How strong is the linkage between the organization's performance measurement system and the long-range strategic plan? Are all key elements of the strategic plan (at each level) reflected directly by appropriate measures?
6. How strong is the linkage between the organization's performance measurement system and key organizational processes?
7. Do you establish a relationship between your measurements and department results? How?
8. What is top management's role in the ownership/championship of your performance measurement system?
9. What training is offered/provided to the organization-at-large?
10. Regarding your organization's design and implementation of its performance measurement system:
    - What was the initial impetus for the development of the system?
    - Was the decision to design the system a conscious choice, or did the system evolve over time?
    - If a conscious choice was made, who led the effort? (I.e., who were the champions, designers, implementers, etc., of said effort(s)?)
    - How was the system designed?
11. By what process does the organization align performance measurement systems with its vision, mission, strategy and tactics?

Section II—Performance Measurement

1. What key measures are considered most important (i.e., those measures that carry the most weight) by top management and their direct reports? Are goals set for each measure? How? By whom?
2. Has the organization been able to demonstrate financial and/or non-financial business successes as a result of implementing the performance measurement system? At what level(s) are these successes taking place (e.g., department, functional unit, etc.)?
3. Is there a weighting system to indicate the relative importance of each of the measures to the overall performance measurement system?
4. How do you measure qualitative/soft date (e.g., creativity, ethics, employee satisfaction, organizational effectiveness, organizational learning, trust, etc.)? What additional measures are being developed/piloted in the areas of: customer satisfaction, organizational effectiveness, learning and innovation, other?
5. Does the organization maintain a current catalog of all measures it uses?

6. Does the organization benchmark its performance measurement system to that of other organizations to gain varying perspectives and best practices relative to measurement?
7. What is the linkage or alignment between key organizational/department measures and the measures used throughout the organization? Do you roll up the same exact measures or is there a "local option" in the sub-units regarding what to measure?
8. How does the organization evaluate the effectiveness of the performance measurement system?
9. How is a performance measure selected for use in your organization? How are benchmarks subsequently established for the performance measure selected?
10. By what process does the organization ensure the accuracy and integrity of performance data?

Section III—Communication

1. To what extent are the following communication tools used in your ongoing initiatives regarding the performance measurement system? How effective is each tool?
   - Word of mouth
   - Company publications
   - Bulletin board announcements/charts
   - E-mail
   - Special team meetings
   - Frequent, routine team meetings
   - Training sessions in measures
   - Videos
   - New employee orientation
   - Intranet
   - Performance measurement software
   - Other
2. Do you have a specific electronic access and transmission capability or are you planning one for future use?
3. Is access to the results of any measure in the system available on a real-time, continuous basis (e.g., daily, weekly, monthly, etc.)? If yes, at what level can the information be accessed continuously? Department head and direct reports? Other management? Non-management employees?
4. Is there a formal training or communication program for senior management, middle management and non-management in the establishment of performance measures, the gathering of data, the assigning of accountability and the use of data for improvement?
5. Does senior management demonstrate that they are taking action on the results of performance measurement initiatives?
6. Does your organization employ the use of a formal feedback process or system for performance measurements?
7. Is the general population of employees typically involved in defining performance measures? Individual(s)? Team(s)? Office/shop? Department?
8. Does management solicit input from employees prior to modifying performance measures?

9. By what process is organization-wide understanding and recognition of accountability relative to the performance measurement system ensured?
10. By what process is support and acceptance of the appropriateness of the performance measurement system ensured (i.e., communicating the system in a way that employees understand its significance and value)?
11. By what process and how frequently does the organization enhance/upgrade the technology that supports effective communication of the performance measurement system?
12. What formal feedback processes are used to improve the performance measurement system?

Section IV—Integration

1. Is compensation of *top* management affected by any of these: profitability, quality, customer satisfaction, employee satisfaction, productivity/cost, safety/health/ environment, community/corporate relations, citizenship/ecology, other?
2. Is compensation of *middle* management affected by any of the same factors as above?
3. Is compensation of *non*-management affected by any of the same factors as above?
4. Does the department have any means of rewarding non-management employees, either in groups or individually, based on measured results?
5. Does the organization employ the use of specific, non-compensatory tools or methods (organizational/HR) to motivate employees in response to performance results?
6. Is there linkage between your performance measurement system and your quality system and its initiatives?
7. By what process is performance measurement integrated with: organizational goal setting, individual employees' contribution to the organization, employee development, succession planning, training, management development?
8. How is organizational feedback and/or ongoing initiatives such as benchmarking integrated into the performance measurement system?
9. What actions, if any, does management take as a result of performance measures achieved?
10. How adaptable is the measurement system's balanced scorecard or family of measures to new measurement initiatives?

Section V—Outcomes and Results

1. When measurement goals are met on an ongoing basis, are changes made to the performance measures that are part of the system?
2. Are the goals/expectations of the performance measurement system changed from year to year in an effort to enhance organizational results over time?
3. What are other uses of data generated or information obtained from the performance measurement system: Knowledge management? Competitive intelligence? Continuous improvement? Other?
4. Has the organization invested additional funds in increasing information technology capabilities to better facilitate the performance measurement system?
5. Is the performance measurement system reviewed systematically? Monthly? Quarterly? Annually? Other? By whom?

6. Are changes made to the performance measurement system as a result of the systematic review process? Changes to performance drivers? Changes to performance metrics? Changes to measurement weightings? Other?
7. Does top management use performance measurement results in their decision-making process(es) (e.g., resource allocation, new services, establishing priorities, etc.)?
8. Are your measures designed to delineate cause and effect relationships?
9. For the performance measurement system, are the short-term and long-term benefits evident?
10. By what process does the organization build on initial successes to ensure that performance measurement is an ongoing process?
11. How is the frequency of reporting performance measures determined?
12. What is the process used to monitor the performance measurement system?

Technology-Based Training

Key Findings

Section 1: Strategies for Technology-Based Training

1. Best-practice organizations' technology-based training efforts are new initiatives often developed and managed by a centralized group with dedicated funding.
2. Best-practice organizations take an "enterprise" perspective when implementing technology-based training solutions.
3. Best-practice organizations recognize how training benefits from advances in workplace technologies and exploit the opportunities created.
4. Best-practice organizations recognize that successful planning, deployment and operation of technology-based training requires strong ties with the Instructional Technology function.
5. Best-practice organizations have flexible development and delivery organization strategies to scale up or down as needed.
6. Best-practice organizations have aggressively exploited third party course providers with solutions that can be network deployed.

Section 2: Design & Delivery

7. Since technology-based training is often delivered to "non-captive" audiences, the best-employed solutions are targeted to be highly job-relevant (as defined by the learner).
8. Best-practice organizations recognize that technology-based training is not the end-all, be-all for training needs. These organizations value a mixture of face-to-face and technology-based training offerings.
9. Best-practice organizations have been most successful with asynchronous technology-based training delivery and plan to do more in this format.
10. Best-practice organizations use simple technologies well.

Section 3: Implementing and Achieving Results

11. Best-practice organizations build communications and relationship management into the full life cycle (opportunity identification, rollout, and ongoing operations) of a technology-based training product or service.
12. Best-practice organizations have evolved their evaluation approaches to take advantage of the capabilities of the new technology environment.

Organizational Analysis Tool

Section 1: General Information

1. How does your department organize the training function (infrastructure, full & part-time staff and their roles, long-term partnerships)? How does this function relate to the organization as a whole?
2. How is responsibility for training divided between the institution and your department?
3. What is your organization's culture as it relates to training (e.g., it is a necessary evil, we always seek to buy first, our learners prefer the classroom, training time is hard for learners to find, etc.)? The use of technology?
4. Why did your organization decide to create its technology-based training initiative?
   What was the state of training before the technology-based training initiative?
   What factors were influential in the creation of the technology-based training initiative?
   What challenges did you face during the creation of the technology-based training?
   What resources were needed in order to create the technology-based training?

Section 2: Strategies for Technology-Based Training

1. Has your organization developed a strategic plan for your technology-based training initiative(s)? How is it tied to business goals, organizational objectives, etc.?
2. How does the delivery of technology-based training relate to your organization's business strategy (e.g., accelerate certification, reach a more distributed audience, lower training cost, expand benefits provided to learners)?
3. How does your technology-based training function integrate and align with the information technology (IT) function and IT strategy?
4. How have changes in the technology infrastructure of your organization affected your ability to offer technology-based courses?
5. Which of the following groups is involved in creating the strategy for technology- based training: training & development function, IT function, business units, directoral staff, outside consultants, vendors or subject matter experts, other?
6. What is the staffing mix you need to develop and deliver technology-based training?
7. How does this differ from the mix needed for classroom courses?
8. Which groups within your organization have most actively embraced technology-based training? By job type; work area; personal demographics (e.g., age, gender, etc.) Why?
9. Do you have employee segments that resist these delivery methods? Why do they resist? What have you done to overcome this resistance?
10. Do you use this information to plan your technology-based training development and delivery?

11. How do you market your technology-based training programs? (Staff meetings, newsletter, video, e-mail, surveys, web site, road shows, internet, intranet, informal communication, other.)

Section 3: Design and Delivery

1. Do you perform a needs analysis to determine whether specific training should be delivered via technology or traditional methods? What are the major factors you consider when deciding whether or not to offer a course via technology-based training?
2. Do you design your own technology-based training courses/programs? If so, who designs the learning initiatives? How do you ensure that content is current?
3. What instructional methodologies and tools does your organization currently use for technology-based training?
4. How do you determine instructional methodology and which tools work well together to deliver the learning? (I.e., How do you pair the content with the medium?)
5. Has your organization determined certain skill sets that are best addressed by specific types of technology-based training products?
6. What is your process for determining whether to develop, purchase from vendor, and/or customize technology-based courses?
7. Of the technology-based training courses that you offer, what is the percentage of self study versus group courses? What is the ratio of learners to facilitators?
8. For technology-based training courses that your organization uses, what **minimum** hardware/software platform do you target: Operating System—e.g., Windows 95, Windows 3.x, Windows NT, Macintosh, UNIX; Processor—e.g., 486, Pentium, Macintosh; RAM – e.g., 16mb, 32mb, etc.; CD-ROM; other?
9. How do you deploy technology-based courses?
10. How does your organization use vendors and outside experts throughout the design and delivery process?
11. How do you address the change of job roles for professional trainers upon implementation of technology-based training?
12. Which of the following barriers is the single most significant to the success of technology-based training: availability of equipment, cost of implementation, cultural readiness, educational quality of medium, other?
13. How do you determine the number of people in your target audience for any technology-based training course?
14. In five years, what percentage of your total curriculum do you estimate will be self study (directed) learning?
15. What group has the *most* interest in seeing technology-based training implemented within the organization: management, administrative, front line, other?
16. What group has the *least* interest in seeing technology-based training implemented within the organization: management, administrative, front line, other?

Section 4: Implementing & Achieving Results

1. How did you assess cultural readiness for technology-based training? How did you introduce the technology-based training efforts to the organization?

2. Have you identified the profile for the successful technology-based training learner? If yes, what is it?
3. How is training management accomplished for all of your courses? Possibilities include:
   a course catalog provides a listing of all available courses
   a listing of courses which also directly handles registration
   an integrated personal training plan which is linked to a course catalog
   a custom training management application maintained from a central site
   a custom training management system which is managed by operating units
   a third party application (PeopleSoft, SAP, etc.)
4. What cultural/human factors has your organization had to overcome in implementing your technology-based training initiatives?
   Lack of technological skills
   Lack of interest in using technology-based training
   Users' lacked access to software/hardware
   Time constraints
   Trouble engaging the learners
   Cost constraints
   Other
5. Do you evaluate your technology-based training efforts any differently than classroom-based learning initiatives?
6. At what points does your organization assess employee knowledge and skills?
   Prior to taking a technology-based training course
   Upon completing a technology-based training course
   Annually
   Other
7. How does your organization measure the value added by technology-based training initiatives?
   Employee pre- and post-testing
   Learner self-assessment
   Comparison of actual to projected learning outcomes
   Controlled studies
   Constant assessment with feedback at each stage
   Post-training employee surveys
   Return-on-Investment(ROI) analysis
   Other
8. What major improvements or changes have occurred in your organization which can be attributed directly to technology-based training initiatives?
   Measurable increases in productivity and/or profitability
   Documented cost reductions
   Increased learning
   Improved employee feedback about managers
   New/different learning initiatives
   Other

9. What is top management's level of confidence that the technology-based training initiatives are effective: unconfident, somewhat confident, confident?
10. What are the sources of funding for technology-based training activities: department, business unit or division, other?
11. What information about training delivery (e.g., completions, training time, materials expense, development cost) is reported up to senior management? What interval (monthly, quarterly, etc.)?
12. What other parties are interested in such reporting (first-time managers, project managers, division heads, etc.)?
13. How do you communicate the benefits of technology-based training? How is this information broadcasted to the company?

As you have seen by reviewing the above findings and tools, they are great for looking at your facilities organization either (a) to improve its performance or (b) to start implementing a performance measurement system or technology-based training system. Most of us have a lot of opportunity to do one or the other, improve or implement something new. Good luck.

Facilitating Learning in a Changing World: Planning for Uncertainty

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In reality in the midst of massive change some things often change little over time. The title for this paper is taken from the name of the first university planning conference that the author attended in Australia in 1973. If anything the uncertainties that we face now are much greater than then although we all felt then that the number of independent variables affecting our working lives was big enough to put planning into the realm of guesswork In this paper problems affecting a publicly funded regional university in a very large country with a small and widely dispersed population are the basis of the discussion of the different planning approaches that are practical for it. To set the scene the following conditions apply:

a. we are publicly funded- this means that just over half of our income comes directly from the taxpayer, the balance we have to win, earn or solicit.

b. we are located in the remote tropics- latitude 19 for our main campus and 22 for our satellite campus.(about 250 miles to the north)

c. our nearest neighbour university is 500 miles to the south. Until recently it was 1000 miles to the nearest, at our state capital.

d. our immediate catchment population is about 350,000, spread over a vast area.

e. we, along within other Australian universities have had substantial reductions in our funding from government. We are allocated funds on a per student per discipline basis, with no regard for local conditions. Eg local cost structures. It is a single line budget allocation, with provision for special support of specific activities under special conditions, for example, capital development for a new university, special equity programs and so on.

f. like most other universities we have a major deferred maintenance list

g. we have a total of about 10,000 students, growing slowly and fairly unpredictably in response to external economic and political forces.

h. there is vigorous competition for students between all Australian universities.

i. unlike in the U.S.A. there is very little tradition of benefactor support for educational and cultural activities in Australia. Fundraising on the large scale is a new enterprise on which we are all attempting to embark.

j. community attitudes to higher education vary from enthusiastic support to cynicism.

k. we have a little extra spice added to our situation in that there is fierce parochial competition between the two cities in which we have campuses.

l. we are in a state of organisational restructuring, evaluating and modifying as a change from a centralist model to a devolved model. This will run over a period of three years, with us currently at the end of year two.

m. Faculties have been reorganised and a number of administrative functions have been devolved to them. The administration has also been reorganised and with only a few exceptions there has been a total change of senior executive staff from the President down. So it is a regime of major change coupled with a loss of corporate history and local knowledge.

n. within government there is a strong emphasis on economic rationalism and open competition although within the community there is a groundswell of welfare and cultural concerns beginning to emerge.

o. we have more than the usual budget problems, with major debt servicing costs that seriously inhibit our ability to respond to new conditions or initiatives.

p. some of the corporately oriented graduates that are entering our organisation do not have the maturity needed to recognise any concern other than for dollars.

q. change is very fashionable in some senior executive circles, whether desirable or not, and whether the costs of implementation have punitive outcomes or not-almost change at any price.

r. increased accountability in increased detail, is being demanded by the taxpaying community. Generally this must be accepted as reasonable, except when individuals proceed on harassment crusades, when it is both expensive and time wasting.

s. we are a research university through to post doctoral level

The Planning Process Alternatives

Given that we agree that lurching along with year by year plans reacting to current forces is not satisfactory, that the institutional mission is clearly articulated and understood and that we need to plan for a reasonable period ahead, essentially there are two extremes within which any process must fall. The first , which appeals to many , is to plan in detail every aspect of activity for the designated period based on the mission statement and the action plan that presumably has been derived from it. A variation of this, which is less demanding, is to set rules, goals, conditions of growth that meet the interpretation of the mission statement for which provision must be made and plan in detail only those things that are certain. The second, the other extreme is don't plan at all. This is rejected. It is however a fundamental belief of the author that the implied precision of plans should never exceed that which is achievable in reality. This is the guiding principle that I suggest is appropriate to selection of a planning process. The reult of this approach is obvious, if there is going to major rapid growth initial plans will include great detail for the initial years of the project, if it is likely to be slow plans will reflect less certainty.

Planning Variables

There are several sets of variables that influence the preparation of a campus plan. They are:

a. physical criteria, eg walking times/distances, site coverage, plot ratios, site zoning and so on. These are the easy ones to deal with and are common to all approaches. They form the physical ground rules for the campus.

b. definition of building and landscape styles and materials and any local features defined as essential for the institution. Again these are common to all approaches and relatively easy to deal with.

c. space provision criteria Both a), b) and c) involve research and analysis but once decisions are made they remain as enforceable until a deliberate decision is made to change them.

d. student enrolment growth projections by discipline and level.

e. retention rates

f. staff student ratios (all categories) This group involves estimation, and furthermore they are influenceable by factors totally outside of the institution's sphere of influence . These factors include:

the economic health of the community
the community attitude to higher education
fashionable and unfashionable disciplines
the ability of the university to respond to community needs
the wish of the university to respond to community needs
government attitudes to the support of higher education
the reputation of the university
the reputation of the discipline within the university
the public presentation and image of the university
the availability of suitable student accommodation
population demographics
the social environment in the area and town

It is clear that with the best of will and the best of skills and data, forecasting the effects of these influences demands far more than science can provide in a normal planning exercise. Would you stake your personal fortune ten years ahead on the basis of an assessment of these issues? I think not.

This leads then to the assessment of another set of variables:

- capital cash flow availability
- ability to recruit suitable staff
- availability of physical resources

Remember that we are looking at a publicly funded institution in a country where most higher education is publicly funded and there is a community expectation that this will continue. How that public support flows is subject to all of the usual political influences, frequency of elections, marginal seats, pork barrelling, opportunism and so on. The best of academic plans is subject to so many uncontrollable external forces as to be limited in value to definition of general directions and goals. Capital and operational cash flows can be changed with the stroke of a government pen without notice. Remember too that we are in a remote region of low population a long

way from both the centre of government and the population centroid. I have no doubt that some of you are familiar with that situation.

So any physical development plan must be able to cope with this kind of uncertain operational base.

Given that the the primary reason for having a development plan is to provide for efficient implementation of academic plans in a safe and pleasant environment, what is the best means of achieving this? A major range of internal and external uncertainties, ranging from the business approach of individuals to government policy is to a significant extent undefinable. So what is new? Don't we all have to cope with this and haven't we had to do so forever?

What is new for us is the cultural change to economic rationalism, where only dollars count, to so called level playing fields which ensure in the end that only the large survive. For a remote regional institution these can only mean that our population will receive services inferior to those in large metropolitan areas. Why do I mention this? Because it effects our planning norms. We have to make new kinds of judgements as to what it is in fact reasonable to provide for and to what new scale given the hard line dollar attitude. Is it a good approach? You must make up your own minds about that. My observation (this is a digression from the main theme!) is that graduates who are strongly influenced by the culture of economic rationalism tend to lose sight of social values that are very important "Don't bother with attempts at retraining existing staff, sack them and get new people" was the advice of one of the new breed heard very recently. One can only assume that if they do not learn some new values reasonably quickly they will quite soon be on the receiving end of what they dispense. So I for one am hoping that this effect is reasonably temporary. The application of these principles to higher education institutions is beginning to erode the culture that makes them more than simply training organisations. A totally dollar driven institution is not likely to make the kind of contribution to society that we have come to rely upon. Graduates become very materialistic, human values issues are ignored and non vocational disciplines are downgraded. All of these things add to the complexity of planning and how a good plan can be "marketed."

With formula funding that pays no extra for isolation we must be particularly careful to set design standards that meet our academic needs but are not extravagant and with particular attention to operating costs, with careful assignment of budgets that allow for minimisation of life cycle costs, ie., allow maximum expense on direct academic function. This means tailoring each individual developmental project to the circumstances prevailing at the time that it is launched.

The other important factor is that designs must provide the maximum facility for adaptation to other uses. The rapid and to some extent unpredictable impact of technology on teaching and learning processes make this essential to a degree not previously encountered. We simply cannot say any more that in X years time a population of Y students will need Z square metres of space. I am currently overseeing the design of a new medical school that has no dissection room, or cadaver storage. A few years ago that would have been unthinkable.

Distance education techniques that are made possible by modern information technology have yet to demonstrate their full potential. How will they change the pattern of resource provision and use on our campuses? None of us can do more than speculate at this time. All we can be sure of is that it will continue to change and will depend in part on human preferred behaviour as well as economics and what we come to expect of our higher educational institutions.

We have for some years now been operating under what our federal government calls a unified system of higher education. This gave all colleges and universities the opportunity to call themselves universities and behave accordingly. After about ten years of this we are seeing the first significant signs of a reversion to the old system, with a key group, much smaller than previously, being designated for research and the remainder for training only. For a remote regional university this poses yet another planning dilemma. If we cannot determine our academic plan with reasonable confidence how can we produce a definitive physical plan? The answer is of course that we cannot. How then do we cope? Looking first at the physical planning issues, the process can start in a normal way with space predictions vs student population. Then proceed to-establishment of density standards, ie plot ratio and site coverage identification of feasible movement distances on the campus establishment of building and landscape design standards and philosophies identification of trunk infrastructure requirements establishment of a land use zoning plan production of a conceptual building layout that meets the various established criteria identification of potential for increasing the capacity beyond the initial planning horizon identification of the minimum new building increment that will meet the density criteria. This is important when attractive sums of money are offered for capital purposes that may in fact be too small to provide a building that will meet important criteria.

So far the improvements in technology and changes of funding philosophies have led to a steadily reducing allocation of space per student. This makes it particularly important to ensure that new buildings are readily adaptable to changing uses and to the addition of new technical facilities. In a planning sense this means increased emphasis on provision for adaptability in the specifications for new buildings. Not a new concept but more important than ever.

Twenty years ago our rule of thumb sizing for campus space was 20 sq metres per eftsu. Now the comparable figure is twelve. The curve must be flattening but we don't know the time base. It is genuinely very difficult to evaluate sensibly the impacts of new technologies. The enthusiasms need time for tempering by experience before any real assessment is possible. Given the increasing rate of change of cost and availability of new equipment it makes us more and more dependant on using general criteria for planning purposes. Assumptions of dubious validity made so that precise decisions can be made may not only grossly misleading but can be professionally damaging. Implied precision that does not exist may generate wrong decisions because underlying assumptions are frequently "lost" as distribution of material widens.

4. The discussion above has in fact dealt with the other extreme of the approach.It involves making all of the assumptions needed, no matter how speculative they may be, to enable specific decisions to be made that will facilitate apparently precise decision making about planning details to any future date that one might desire. We have all seen beautifully presented plans of facilities to be built as stage 23 of a 40 year program. Right down to detailed plans and elevations of buildings landscaping signage and so on. Pages of detailed functional and cost analyses, materials descriptions and the like. Cute little line sketches of cosy corners in buidings with stick insects looking both jaunty and relaxed in them. All of it an expensive production and, beyond the first few years, 75 percent fantasy! Unless there is a very strong political or marketing reason for them they are frequently gross wastes of money and in the main initiated by so-called administrative professionals who are in fact behaving unprofessionally . We have also seen computer programs that will not run unless every question is answered, whether or not we know the answer.

We have all probaly seen some of the misleading results that come from this. Guesses that are made to enable a result to be obtained are frequently wrong but are hidden from view when the answers are examined. Possibly the most difficult aspects of practical planning in an uncertain academic environment are:

- matching strategies to budgets
- funding the changes needed to implement new approaches
- dealing with the internal competition inherent in devolved management and maintaining communication with the senior academics who in fact control the direction of growth of the organisation. In a competitive environment not everyone is willing to divulge long term plans. These factors certainly add to the complexity of the tasks facing any persons involved in resource planning and management be it financial or physical

Community Perceptions and Planning

The final section of this paper examines a community perception survey undertaken in the community housing our new sattelite campus, a community formerly without direct access to higher education, 'and dicusses factors that might influence planning.

The survey was undertaken by drop off and pick up and was targeted, with minor modifications in each case at the following sectors of the community:

a. general population

b. service clubs

c. industry and commerce. (A sample survey document is appended) Because of processing delays the results of the survey will be available at the presentation.

Tuesday, 22 June Sessions

APPA's Basic Tools For Facilities Supervisors—Here's How It Works!

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Every Facilities Manager is faced with the need to train their supervisors in personnel management skills. In the late eighties, early nineties, the Association of Higher Education Facilities Officers determined there was a need to develop a management training tool that was site specific, all inclusive, and could be reused time and time again. At the time there were other management tools in the market place, yet none specifically addressed Facilities Management, or had a price tag that most Facilities departments could afford. Therefore the staff at APPA, in conjunction with Ogden Services, Inc., developed the Basic Tools for Facilities Supervisors (BTFFS) program as a cost effective Facilities Management training tool. The complete program, including instructors manual, five participant workbooks, and videos, costs $995.

It is essential that we train our supervisors to handle varied and sensitive issues such as substance abuse and sexual harassment, in a professional manner, which will reflect an attitude of fairness and responsibility. Overall, the BTFFS program is successful. It is an excellent platform which all Facilities Management departments can use to train their staff, either by itself or blended with other training programs.

The following is a review of the Basic Tools course and how it works—my own experiences with the program and the participants insights as to what works well, what doesn't work well, and what needs improvement. Included is a brief description of each Module, which is the stated purpose taken directly from the Instructor's Manual of the program. After running through two presentations of the program, and in preparation for a third, I felt it was something I wanted to continue to share with others who are looking for a training tool that is geared specifically to Facilities Management personnel, and can be used over and over again—with improvements each time. As you can read from the participant reactions in general, and over each of the seven modules in the program, there are difficulties with it's use, and not every review was enthusiastic. However, even with its limitations, I feel that my front line supervisory staff are proof of the program's usefulness. At the University of New England, it is one matter to give our supervisors responsibility, it is another matter to teach them how to manage those responsibilities. Better staff interaction, positive goal setting, positive reinforcement of work well done, the ability to be an effective leader for their staff, and improvement in communication and listening skills, are direct results witnessed by our supervisors as a result of the Basic Tools program.

Basic Tools Modules

Module I: The Changing Job of Supervision

"The purpose of Module I is to introduce management/organizational challenges, issues, problems, and techniques by exploring what the role of a supervisor is. Further, to identify and discuss the characteristics of today's employees and highlight the skills required to effectively supervise them."

Module II: Building Effective Internal & External Relationships

"The purpose of Module II is to help the participants understand the distinction between the internal and external customer. With this understanding, the participants will develop the interpersonal skills necessary to build effective relationships and foster involvement and commitment among employees."

Module III: Getting To Know Your Employees

"The purpose of this Module is give supervisors a basic understanding of motivation theory and how to skillfully recognize positive results as a management tool.

Module IV: Basic Labor Relations

"The purpose of Module IV is to enhance the supervisor's handling typical human resource management concerns."

Module V: Goal Setting

"The purpose of Module V is to help supervisors appreciate the importance of goal setting and the impact it has on performance. To provide supervisors with a systematic method of establishing concrete performance goals with their employees."

Module VI: Communications

"The purpose of Module VI is to enhance the supervisor's communication skills and give supervisors the skills they need to clearly explain procedures and communicate with confidence and conviction."

Module VII: Situational Leadership

"The purpose of Module VII is to develop supervisors' leadership skills needed to fulfill the demanding roles they perform in today's diverse and competitive workplace."

There were many items in the program that worked very well. The listening triads, for example, was an exercise that was valuable, fun, interactive, and educational. Corrective action information, reinforcing positive action, were items that were interesting and engaging for the participants.

MODULE	PARTICIPANT REVIEW	INSTRUCTOR REVIEW
I	Leave out Supervisor Questionnaire. Too long, too much time on Hawthorne Studies.	Questionnaire excellent tool to bring manager and participant together. Customer service important piece.
II	Book publishing chart is not relevant to FM. Johari Window is a bit confusing. Develop more on the diverse work force—good. Video is poorly done. Goal setting doesn't have much priority, it needs more emphasis.	Flow chart #1—change from book publishing to a FM chain, would be better. Johari Window—not well done, good time to talk about the things we know about ourselves that others don't. Common responsibilities and obligations is well done. Diverse work force is good, helpful hints discussions is also good. Guide for dealing with different personalities and behavior tendencies is good, add some Facilities language to I.
III	Reading assignment is too long and quite boring, theory X and Y not very well done. Sample story does not apply to most of us. Long—for the most part are not applicable. Improve "Getting to Know Your Employees" video. Getting to know employees is a time thing, not a task. Could omit the analogy and much of introduction. Theory X and Theory Y could be condensed.Reading assignment too long and boring.	Reading assignment with Burt and Bob okay. "Getting to Know Your Employees" video and exercise did not work well. Video—providing recognition exercise, use one before next session worked well. Managing absenteeism guide is very good—this should have a larger part in the course, should also be part of the disciplinary process with the empowerment issues with Human Resources. Application planning sheet—good.
IV	Best module overall. Does not have much pertaining to us. Did evolve first stage of disciplinary procedure. A very well put together and informational module. Would not change a thing in this one. As the first step int the corrective action process, Module IV was very helpful. The excellent guidelines were extremely useful—have put this to use a couple of time. A lot of information, should have take 2.5 to 3 sessions.	Reading assignment is very good, but would also include in this our own HR Personnel Handbook with our own policies and procedures. Exercises, questionnaires, etc., are very good, again keep tying our own into those. Policy guide is good, proactive approach, etc., also, here is where the results of the training started to show, dealing with initial problems we were presented with on our staff. Documentation needs to be brought into this area - strength of, purpose of, etc., not mentioned enough. Investigation guide is good but not always practical. Skill application sheet worked well in session, also a great opening and follow up in the next Module.
V	Shorten reading assignment. Instructor's opinion / feelings can influence time and energy into each Module. Tasks are predicated on past Module, too much back and forth, especially if there was a gap in presentation. Examples for goal setting should be relevant to facilities. Refers to the production of widgets.Skipped the role play.	Reading assignment was okay, action plan following is good. Part of the reading assignment is the questions asked, where the diagram is on widgets and why isn't this a FM diagram? Setting realistic goals exercise should be tuned to the University setting. Barriers that affect goal setting exercise is good. Roger Crisp study—answer to question three is he should sign up for the BTFFS. Application planning sheet was not very clear or easy to understand what to do or how to proceed.

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MODULE	PARTICIPANT REVIEW	INSTRUCTOR REVIEW
VI	This Module should have been second or third. Videos were poor. An example used for Barriers refer to manufacturing and production. This is very important, would have put is as second Module.	Probably the best Module in the course, should be worked into a different position, as the skills learned and practiced could be used before the Module on corrective action. Reading assignment is important, with a lot of important information in it, still not sure if that is the most effective way to present it. Barriers, listening skills quiz and handout are both good. Verify/clarify listening triads were excellent, great way to practice skills, plus quite a bit of fun. Video is good, questions following are okay. Skill application planning sheet is very good and ties again into corrective action, empowerment.
VII	Shorten the reading assignment. Take the Sheriff and Deputy out - childish and not FM related. Poor diagrams. Poor explanations. Seemed out of sequence. Change of terms, made it hard to follow. Leadership map exercise not done very well. Examples for each of the 7 positions on continuum of Leadership Behavior would be helpful. Wording changes from type to style and from effort to desire. Would not use this Module. Too wordy, loses reader focus. No tools to use in the trades. No closing statement for the course.	Leadership—learning and discussion points could be reviewed a s an intro into this Module but perhaps pieces of this should be reviewed at the beginning of Module I as a reason for the program. Reading assignment was a bit confusing, did not use the same examples throughout, should have shown examples of each. Participatory management is considered the most effective style, but is mentioned at the end of the reading assignment—it was felt by the group it should have been brought up earlier. Exercises were not the greatest, also note that at this point people were ready to wrap it up. Video and leadership map exercise with the Sheriff, Deputy, examples are relevant to FM at all. Application assignment sheet, felt this should have been used further back in the course. Conclusion is weak, at this point the participants were ready to go, yet there is no review of the course as a whole.

There are many additions and changes to be made to the program to make it more applicable, usable, and interesting for the participants. The addition of our Human Resources personnel into Module IV and the corrective action process was an excellent change in the program. Reading assignments should be condensed in some areas, perhaps using them as part of the slide presentation would make more sense. Many of the goals and objectives listed at the beginning of the course stating what the individual would hope to accomplish could be done before or after the Facilities Supervisors Questionnaire. The questionnaire is a good spot to tie in the leadership points too.

Much of the physical layout of the program could be changed, with an eye towards ease of use and how to make the instructors job easier. The flow of information is not always clear in it's present arrangement and many times confusing or unmanageable. Many of the examples used could be aimed more towards a Facilities Management department instead of examples such as Swiss watch making to show paradigm shift.

Conclusion

The program leaves some room for improvement but I strongly believe in it's use, and have found great success in my front line supervisory personnel's ability to handle many of the day to day problems they are faced with. Success is seen in their ability to become effective leaders who are reinforcing positive behavior and jobs done, who are aware of internal and external customers and our service to them. The front line supervisory staff at the University of New England are empowered with the responsibility of their position and with the training provided by this program, are effective in handling these responsibilities.

The cost of the program is not very high compared to the cost of ineffectively led staff who are not living up to their potential on the job. This is shown through an increase in absenteeism, work not getting done in a timely fashion, or not getting done with the quality that is expected of us by our customers. To spend the time to use the Basic Tools program, to work with your front line supervisors, is an investment in them. It is giving them the opportunity to learn how to use their authority effectively, wisely, and hopefully in a positive way. The cost of this investment is in time by all of your Facilities Management staff, to support the participants in their efforts and the practicing of their skills in the field. The costs associated with the running of the program are minor compared to the results received from having effective, qualified and trained leaders in your Facilities Management department.

I charge any Facilities Management Director that you cannot afford not to use this program. As we grow in our institutions, our abilities to lead and supervisor are crucial to our successes. APPA's Basic Tools for Facilities Supervisors is a way to train your staff to be the kind of quality supervisor you wish for, the person you want to have leading your staff. How does the program work? It works great! I challenge you to use it and to help improve it!

Clemson University's Central Energy Facility and Energy Systems Laboratory—An Integration of Operations and Academics

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Clemson University Facilities

Clemson University Facilities developed a strategic plan for a new Central Energy Facility. This project proactively combines the need to replace a fifty-year old steam plant with a plan to provide hands-on experience and educational and research opportunities for faculty and students of American colleges and universities. The concept effectively "modularizes" the energy facility, thus allowing for various power technologies to be incorporated into the operational mission. Coal-fired boilers and electric chillers are being replaced with a combined heat and power plant using gas-turbine technology including heat recovery systems and high-efficiency refrigeration machines.

In addition, Clemson University Facilities incorporated an Energy Systems Laboratory (ESL) into the design of the new facility. The ESL will include remote data monitoring, hands-on learning, curricula enhancements, and research and development opportunities. Utilizing fiber-optic connections, high-speed servers and the Internet, Clemson University will provide real-time data to National industry, university, and government partners.

Introduction

Clemson University. Clemson is a land grant, state-assisted University established in 1889 and currently consists of 137 buildings of more than 5 million square feet. Established by the citizens of South Carolina as a scientifically oriented institution of higher education, Clemson University has been charged to preserve, enhance, interpret and disseminate the body of human knowledge. The mission of the University is to serve the State, the Nation as a whole and the international community through teaching, research, and public service activities. The University

emphasizes science, technology, and innovation and is dedicated to providing a liberal education that fosters integrity, critical thinking, a global view and leadership for a changing world.

Mission. The mission of the project team is to upgrade Clemson University's Central Energy Facility (CEF) in the most effective manner while increasing the scope of services, planning for future utility needs, preparing for changes in the energy industry, and minimizing life-cycle costs and environmental impacts. The new CEF must:

- Provide efficient and effective utility services, namely: steam, chill water, and electricity,
- Provide utility backup and service protection,
- Reduce energy demand and consumption, and
- Reduce emissions.

Vision. The vision of the CEF project team is to install a central energy facility that satisfies the mission and incorporates an Energy Systems Laboratory (ESL) within the design of the facility. The ESL must integrate undergraduate, graduate and faculty education and professional development within the CEF's operational activities. By including an educational component within an operational facility, the energy systems laboratory will synergize operations and academics. This synergism will allow students, faculty, and industrial partners to benefit from hands-on opportunities, real-world application of theory and principles, and an ability to address a myriad of issues in a state-of-the-art energy facility.

Scope of Work

Project Development. Clemson University's Central Energy Facility (CEF) consisted of four coal-fired stoker boilers (180,000 lbs./hr total steam capacity) and four 1500-ton electric centrifugal chillers. The CEF generates saturated steam at 125 psig throughout the year which is distributed underground through a network of piping to campus buildings for:

- Space heating
- Domestic hot water
- Humidification
- Research projects
- Miscellaneous processes

The chill water system relies on condenser water pumped from nearby Lake Hartwell. The CEF distributes this chill water at 40^{o}F to the campus buildings for:

- Air-conditioning
- Dehumidification
- Process Cooling

In December, 1996, the CEF project team, after review of the campus utility profiles and the plans for expansion, determined that the University needed to replace the majority of its steam generating capacity, replace and increase its installed chill water capacity, and that the University lacked sufficient electrical backup/standby generation. If the University was to fulfill its mission as a leader in the scientific, research and technical communities some changes had to occur. The CEF team proactively developed a plan to replace three boilers and four chillers with a combined heat and power plant and strategically planned to partner with industry to include participation of

the University's greatest assets: its students and faculty. The fourth coal boiler has been re-controlled and is now operating efficiently.

The decision to install a combined heat and power plant was made to meet the challenge of effectively meeting steam and chill water needs while adding electrical generation and remaining within the confines of the existing physical structures. An additional challenge to the project team was to increase the scope and quality of services, nurture the vision, and still operate within the appropriated $12,750,000 budget. This budget is approximately one-half the proposed budget for previous unsuccessful attempts at replacing the central energy facility.

The project team determined that the best plan for accomplishing its mission and vision would be to use industrial-scale combustion turbines with heat recovery and a hybrid chiller plant. By keeping the re-controlled boiler in place, an aggressive project schedule and competitive fuel pricing could be achieved.

Marketing Plan. The project team estimated the mission could be accomplished within its budget, but the value-added component of the vision would be difficult. In an effort to develop partners as opposed to vendors, the project team met with the major equipment manufacturers, the Department of Energy, University faculty, and the South Carolina Institute for Energy Studies. Unanimously, industrial partners wanted to be involved in both the mission and vision. Industrial partners were quick to realize the benefit of hands-on education opportunities for its prospective employees, the ability to perform benchmark testing, product development, and industrial training.

The South Carolina Institute for Energy Studies (SCIES) manages the Department of Energy's (DOE) advanced gas turbine research program. The goal of this program is to increase turbine efficiencies by improving heat transfer, materials, combustion, and processes. Located at Clemson University, SCIES served as a conduit for the CEF team to market the vision to the manufacturers. In addition, the program managers are excited about the opportunity for operational scale research and development opportunities for DOE sponsored products.

After receiving encouragement from industry that there is interest in partnering with a university's operational facility, the Clemson CEF project team had to develop a method to procure an operational facility which supports the visionary concept.

RFP Preparation. Clemson University had tried to replace its central energy facility for many years. For various reasons, previous attempts were unsuccessful. Because of the unsuccessful attempts, the CEF project team was faced with another challenge: complete the facility prior to October 31, 2000. This completion date was set to comply with a Consent Order from the state's environmental regulatory agency.

The project team met with the Office of the State Engineer, the governing body for construction at State institutions in August 1997, to discuss procurement methods for both the operational facility and the associated energy systems laboratory. Over the following months, the project team was guided through the procurement process and the development of a Request for Proposals (RFP) which addressed both the mission and the vision.

By employing the RFP process, Clemson University was able to objectively evaluate various plans for achieving its goals of providing both reliable utility services and an energy systems

laboratory. The RFP process enabled Clemson to secure a design/build project in an effort to 1) utilize the expertise and creativity of potential proposers and 2) minimize preliminary design schedule length. To insure that Clemson University Facilities would be able to procure a new central energy facility within budget, the Office of the State Engineer suggested the RFP have two alternates: the first was the combined heat and power plant with an energy systems laboratory; the second was a standard steam and chill water facility without the education components. By allowing the dual alternate RFP, the Office of the State Engineer allowed the CEF project team to pursue the most valuable project for Clemson University as a whole while still protecting the interests of the operational mission of University Facilities.

On March 26, 1998, *"Request for Proposals for Clemson University's Central Energy Facility Renovation"* (SC State Project #H12-9696-DS) was issued. Proposals were received on June 19, 1998.

Proposal Evaluation. Prior to releasing the RFP, Clemson University Facilities had to develop an evaluation process that guaranteed the mission would be satisfied and allow contractors and designers to maximize the value-added components. The evaluation process had to permit diversity, advanced technologies, and unique partnerships. The evaluation criteria had to ensure the proposals met the long-term strategic needs of Clemson University, that the potential contractors would meet the standards set forth by the State, that the operational mission would be achieved, and that contractors were committed to the energy systems laboratory. The Award Criteria are listed below in order of importance:

- Ability to meet all required utility needs.
- Adequacy and completeness of proposal.
- Commitment to academic advancement... and ability to interface with the energy systems laboratory.
- Diversity of technology and systems, flexibility...expansion and upgrade capability.
- Maintenance capability, including warranties and service response times.
- Clemson University reserved the right to enter into price negotiations with the highest ranked offeror.

Contractor Selection. Clemson University Facilities accepted proposals until 11:00 a.m. on June 19, 1998. After the evaluation committee had met, individual members evaluated, and the committee ranked the proposals, the design/build team of Stanley Jones Corporation and I. C. Thomasson Associates was selected to design, construct, install, and commission a new combined heat and power facility for Clemson University. Included in the operational portion of the facility are the following:

(1) Solar Taurus 60S gas-turbine
(1) Solar Mercury 50 gas-turbine
(3) Trane Centravac electric chillers
(1) Trane Horizon steam-fired absorption chiller
(1) Cleaver Brooks D-Type gas package boiler
(1) ERI heat recovery steam generator with Forney duct burner
SquareD electrical switchgear and transformers
Fisher-Rosemount DeltaV control system

Nalco Chemical Company water treatment
Plant auxiliaries

The installed new steam capacity will be 150,000 lbs./hr; the chill water capacity will be 6,400 tons; and there will be a nominal nine (9) megawatts of electrical generation.

In addition, Stanley Jones Corporation was able to enlist contributions to the Energy Systems Laboratory in the form of:

(1) Solar Turbines motorized cutaway,
Five (5) client computers for use by researchers, students, of operator training,
Thermal Analysis, Pipe-Flo, MIMIC, SIMVOX, and Trane System Analyzer software modeling packages, and
Industrial training and lecture series.

The contract price is $11,980,142.

Project Status

Construction. Stanley Jones Corporation, the general contractor, began construction on the central energy facility renovation in January 1999. The scheduled commissioning of the two gas turbines is March 2000, with an anticipated project completion date of April 2000.

Academic Involvement. The commitment to the project by the academic community has been remarkable. Professors from Clemson University as well as other institutions have developed scope of work documents, research proposals, demonstration protocols, and curricula enhancements centered on the central energy facility and its associated Energy Systems Laboratory. The South Carolina Institute for Energy Studies has served as the liaison between faculty representatives, University Facilities, and the industrial partners. This teamwork between all parties has enabled the program to be successful. As the project continues to develop, an increasing number of students, faculty, and industrial partners will become involved.

R&D Programs. Clemson University Facilities and the South Carolina Institute for Energy Studies are collaborating on developing a standard procedure for interested parties to become involved in the central energy facility and the Energy Systems Laboratory. As the facility nears completion, a Nation-wide request for proposals and partners will be published.

Conclusion

Clemson University Facilities was faced with an opportunity to either repeat what others had done and construct a new energy facility which matched its utility needs without regard for the greater vision or to "think outside the box." Fortunately, with a strategically planned proactive approach, Clemson University was able to address its needs while fulfilling its wants. The ability to integrate operations and academics has, to date, afforded the University the opportunity to construct a state-of-the-art central energy facility at an extremely competitive cost. As the project continues and the Energy Systems Laboratory matures, the *value* of the project can only increase.

We have developed a program and built the foundation of a model for partnerships between University Operations and the Academics Colleges they support.

For further information on the Central Energy Facility and the Energy Systems Laboratory please contact Brian Mueller at Clemson University Facilities:

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"Where the Rubber Meets the Road" Performance Improvement

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Texas A&M University

Texas A&M University Physical Plant's management approaches performance improvement with three simple management tools:

1. Positive Performance Management Policy
2. Performance Evaluation—Goal Setting
3. Feedback from Employees on Supervisor's Performance

Through these three practices, we have reduced terminations by more than 50 percent, provided for a consensus between supervisor and employee regarding training and development needs, and given employees a chance to evaluate their supervisors in a meaningful way. Our success is the result of implementation of management and leadership practices that have been used successfully by other organizations. To that end, it is not as if we have discovered anything new. But these three practices in combination are proving to uphold our Physical Plant goals, one of which is to provide a great place to work. We believe that these approaches are the rubber that meets the road in performance evaluation.

Background

For thirty years, I have watched Facilities Operations and Maintenance evolve with fascination and frustration. Significant progress has been made as a result of education, training, and technology. Our people are better educated in technical and management techniques. The Association of Higher Education Facilities Officers can take a significant amount of credit for improvements through its educational and training programs. Education has helped to speed up the transition to new technology. Inadequate funding, lack of understanding of the needs of our employees, and poor communication with our customers have and, in some instances still are, hampering employee productivity in our administrative and technical areas, resulting in a poor image. These are not problems that can be solved quickly, but they do have a solution. The first step is an employee performance improvement system that treats our employees—a.k.a., our internal customers—as adults.

Why do we call our employees internal customers? Webster's dictionary defines a customer as "one who buys goods or services." For our purposes, we've expanded the definition to include

"one who buys or receives goods or services." For example, new employees who attend orientation class given by the Human Resources Department do not directly pay the salaries and support items needed for the orientation. The company pays these expenses. Are the new employees customers of the Human Resources Department? Of course, they are just like every other customer. It just so happens that the company is paying for the services, not the employee.

Management must understand and appreciate the needs of its internal customers. Management can preach until they are blue in the face about the needs of providing excellent external customer service. However, until they recognize the needs of the internal customer and provide them services or goods in an exemplary fashion, the external customer will receive marginal service at best. I believe in the statement, "treat your employees better than you treat your external customers and you will not have to worry about the quality of service your employees provide to your external customer." It will be at least as good as the service the internal customer receives. Our customer survey results show that this policy works.

Some basic facts about the TAMU Physical Plant are:

- We have approximately 1,200 employees who serve 43,000-plus students and 10,000-plus faculty, researchers and staff.
- We have approximately 17,000,000 square feet of building space and 2,000 improved acres to maintain. Additionally, we provide service to the George W. Bush Presidential Library and Museum, which has approximately 250,000 visitors annually.
- We have a yearly budget of $130,000,000.

We service one the largest campuses in the United States. Texas A&M University and its students, better known as Aggies, have very strong traditions, and the students consider it a privilege to attend Texas A&M. We are very respectful of those traditions. Aggies love their University and entrust us to maintain the infrastructure in a manner that supports and fosters the proud traditions of past, current, and future Aggies.

We at the TAMU Physical Plant have three major goals: 1) delight the customer; 2) a great place to work; and 3) no waste. Although the original selection committee put it as goal number two, when I first came on board three and a half years ago, I selected "A Great Place to Work" as the number one goal of the Physical Plant. I wanted our environment to be a place where all employees felt respect and appreciation and their input is also appreciated. Once we truly made the Physical Plant a great place to work, the employees would "delight the customer."

"A Great Place to Work" was never really understood by most of the managers. It means, "people want to be appreciated and compensated for what they do and want to provide input into the decision-making process, knowing that, in the final analysis, their input was considered."

While we were intent on making the Physical Plant Department a great place to work, our Human Resources Department implemented a program called "Positive Performance Management." It was like divine intervention because it provided form and shape to our goal of a "great place to work."

Positive Performance Management

The Physical Plant, Food Service and Human Resources departments joined together in a pilot program to test the Positive Performance Management Program developed by Randy Pennington.

The basic tenets of Positive Performance Management (PPM) are:

- Employees want to perform to the best of their ability
- Treat employees as adults
- Employees assume additional responsibility
- Define expected performance
- Recognize performance that exceeds expectation
- Coach and counsel
- Address substandard performance through non punitive discipline
- Hold employees responsible for improving performance

This is how the PPM program works. It requires the supervisor to establish a coaching and counseling folder (log) for each employee. The log contains positive accomplishments as well as negative issues and is available to the employee at all times. Nothing goes in the log unless it is discussed with the employee. When negative issues continue to occur, the issue is discussed with the employee and the supervisor enters it in the log under counseling along with comments on what specific agreement was made to prevent recurrence. If the matter does reoccur, the supervisor conducts a second counseling session with the employee which is again documented in the log. If there is a reason for a third counseling session, the supervisor prepares a letter to the Assistant Vice President for Physical Plant to review and concur prior to conducting the third session. The Assistant Vice President's concurrence is required because at this point the supervisor gives the employee "a decision day" to think over whether he or she wants to continue working at the Physical Plant. If the employee says that he or she does not want to continue his or her employment, he or she can resign. If the employee says that he or she wants to continue working, the employee is required to sign a statement acknowledging his or her commitment and acknowledging if another serious infraction occurs, immediate dismissal can result. Dismissal can be done in a short period of time if the infraction is serious. Managers and supervisors are required to submit a quarterly report to the Assistant Vice President for Physical Plant which lists all the coaching and counseling sessions they have conducted.

Under the Positive Performance Management, is there a difference in employee attitudes and work performance? The answer is a resounding yes! Not only have the terminations been reduced by more than 50%, our employees like PPM because they know where they stand with their supervisor. The log is valuable to the supervisor because it has all the documentation for employee evaluations which leads into our next program.

Performance Evaluations—Goal Setting

The basic tenets of Performance Evaluations—Goal Setting are:

- Evaluate Past Performance
- Set goals for Future Performance

- Formulate Individual Development Plans
- Coach and Counsel for improved performance throughout the year
- No surprises
- Tie rewards to performance that exceeds expectations

When I first arrived at TAMU, some employees were concerned that favoritism was the reason some employees got recognition, pay raises and promotions. While this is a situation that is often hard to prove after the fact, because employees perceived it was occurring, it was enough to get my attention.

The Human Resources Department sought input from campus departments, especially Physical Plant, and made modifications to the Annual Performance Evaluation to include goal-setting for every employee and simplification of the evaluation criteria. More important, this form contained a section that includes goal-setting to be jointly developed by the supervisor. The percentage of completion of the goals is the main grading criterion for the evaluation period. This method takes the "guess work" out of the yearly evaluation. There is also a section that includes training and development. Again, there is a consensus between the supervisor and the employee for training and development needs that is revised on a yearly basis.

Leader Evaluation

The basic tenets of our leader-evaluation program are:

- Opportunity for employee feedback
- Identifies employee needs
- Identifies supervisor's shortcomings
- Identifies shortcomings in work environment
- Identifies equipment needs

The third performance improvement is employee evaluation of supervisors. Again, I give praise to our Human Resource Department for suggesting this program. At first, we had to sell the idea for this program to our 80-plus supervisors. Once a month, I meet with all 80-plus supervisors as a group. Many supervisors looked at this program as a risky one that would expose weak areas in their sections. We had to convince them that information was restricted and only they would have access to it for the first and second iterations. They would have two years to correct any deficiencies or make changes. We had about 35 supervisors who voluntarily signed up. The next year was mandatory and the results were limited to the supervisors as promised. The supervisors were encouraged to share the results with their people and their supervisor and many did. Overall results were tabulated. The results were positively surprising. The highest rating that could be given was a five. Overall, supervisors received an average rating of 4.2. We will conduct a third feedback session this summer. The evaluations will be mandatory and will be discussed with the next higher level supervisor for the primary purpose of assisting the lower level supervisor.

Conclusion

Where does the rubber meet the road? At Texas A&M University's Physical Plant, it meets where employees take responsibility for their performance improvement. Through the use of our positive performance management policy, goal setting, and feedback from employees on supervisors' performance, we are able to support our Physical Plant goals. Our employees' improved performance gives them a sense of pride in their work, and their quality work delights the customer. Monthly evaluations conducted by our full-time Customer Service Representatives are excellent. Overall, the average, above average, and excellent ratings exceeded 95%. Our evaluation form has five rating blocks. All ratings below three are followed-up by the Customer Service Representative with the supervisor and the customer. The monthly/quarterly reports are then forwarded through the supervisor to the Assistant Vice President for Physical Plant who sends them to the Vice President for Administration. The Vice President for Administration will either discuss or share the report with the President. We have the support of the President of the University. How important is it to have your CEO in your corner? It is worth a tremendous amount in resources and support.

Some might say we are a long way from providing an excellent level of service to all of our customers. Perhaps. But we can see progress and, more importantly, we can look at ourselves and our work and take great pride in both.

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